

# PROGRAMME PROGRAM

SOMMET 2017  
OBSERVATION DE LA TERRE



EARTH OBSERVATION  
SUMMIT 2017

PRÉSENTÉ PAR / PRESENTED BY

AIRBUS

20 AU 22 JUIN 2017  
JUNE 20 TO 22, 2017

CŒUR DES SCIENCES DE L'UNIVERSITÉ  
DU QUÉBEC À MONTRÉAL (UQÀM)

ORGANISÉ PAR / ORGANIZED BY

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# MOT DE BIENVENUE WELCOME MESSAGE

## CHERS MEMBRES DE LA COMMUNAUTÉ DE L'OBSERVATION DE LA TERRE,

C'est avec grand plaisir que nous vous accueillons à Montréal, à l'occasion des célébrations de son 375<sup>ème</sup> anniversaire et de celui du 150<sup>ème</sup> de la Confédération canadienne.

Pour la première fois, la société canadienne de télédétection (SCT), L'Association Québécoise de Télédétection (LAQT), l'Atelier Advanced SAR (ASAR) ainsi que l'Association de Géomatique Municipale du Québec (AGMQ) s'unissent pour présenter un Sommet exceptionnel sur l'observation de la Terre (OT) et sont fières de regrouper les communautés qui s'intéressent à ses technologies, ses applications et ses bénéfices pour la société.

Dans les années 1970 au Canada, l'OT a bénéficiée d'une forte approbation politique en raison de son grand potentiel pour des applications primordiales comme la surveillance des navires, l'état de la mer et des glaces ainsi que pour l'Arctique et les océans. Cet engagement a conduit au développement du programme RADARSAT et de sa série de satellites.

De la géolocalisation sur nos téléphones cellulaires aux rapports météorologiques instantanés, aujourd'hui les images satellite sont partout. Les données d'OT sont indispensables autant dans notre quotidien que pour relever les défis globaux du développement économique durable. Les applications de l'OT et leurs bénéfices pour la société sont immenses. Ils contribuent notamment à faire le suivi des environnements terrestres, à minimiser les impacts liés aux dérèglements climatiques, à soutenir les décideurs et à maintenir la sécurité et le bien-être des générations futures dans un monde en constante évolution.

Le Sommet de l'OT rassemble plus de 500 scientifiques, professionnels ainsi que des chefs de file industriels et gouvernementaux de partout au Canada et de plus de 25 pays. Pendant 5 jours, ils vont présenter leurs derniers travaux sur la gestion des catastrophes, la foresterie, la santé, l'océanographie, l'hydrologie, le Nord, l'agriculture,

la gestion des ressources, la géologie, les mises à jour de la Mission de la Constellation RADARSAT (MCR), les innovations et les avancées sur le SAR, le «Big Data», les applications des drones, la gestion des villes intelligentes et plus encore.

Nous croyons fermement que le Sommet OT 2017 va générer des discussions fructueuses, des idées novatrices ainsi que des collaborations prometteuses.

Au nom du comité organisateur et de nos affiliations respectives, nous vous accueillons chaleureusement au Sommet de l'OT 2017.

## SOMMET DE L'OT 2017 – CO-PRÉSIDENTS



**MARTIN BERGERON**  
Représentant du Symposium Canadien de Télédétection (SCT)



**LAURENT GIUGNI**  
Président de l'Association Québécoise de Télédétection (LAQT)



**PATRICK PLOURDE**  
Représentant de l'Atelier Advanced SAR (ASAR)

## DEAR MEMBERS OF THE EARTH OBSERVATION (EO) COMMUNITY,

It is with great pleasure that we welcome you to Montreal during its 375<sup>th</sup> anniversary and during the 150<sup>th</sup> Canadian confederation's celebrations.

For the first time, the Canadian Symposium on Remote Sensing (CSRS), L'Association Québécoise de Télédétection (LAQT), the Advanced SAR Workshop (ASAR) and the Association de Géomatique Municipale du Québec (AGMQ) unite to present an exceptional Summit on Earth Observation (EO) and are proud to assemble communities interested in its technologies, its applications and its societal benefits.

In the 1970s, EO received a strong political endorsement because of its huge potential for many Canadian critical applications such as ship monitoring, sea-ice state, Arctic and oceans. This commitment led to the development of the RADARSAT Program and its series of satellites.

Today, from geolocation on cell phones to instant weather reports, satellite images are everywhere. EO data has become an integral part of our everyday life and is essential to meet the challenges of the global and sustainable economic development. The societal benefits of EO applications are just phenomenal. They are notably critical in measuring and monitoring the Earth environment, in minimizing climatic disorder's impacts, in supporting decision makers as well as in maintaining the safety and the well being of our future generations in an ever-changing world.

The EO Summit is bringing together more than 500 scientists, professionals, as well as governmental and industrial leaders from across Canada and 25 foreign nations. Throughout this 5-days event, they will present their latest works on disaster-management, forestry, health, oceanography, hydrology, the North, agriculture, resources' management, sustainable development, atmosphere, geology, updates on the RADARSAT Constellation Mission (RCM) along with advanced SAR innovations and research, but also on big data, UAVs' applications, smart cities' management and more.

We strongly believe that the EO Summit 2017 will generate fruitful discussions, innovative ideas and promising collaborations.

On behalf of the organizing committee and our respective affiliations, we warmly welcome you to the EO Summit 2017.

## EO SUMMIT 2017 – CO-CHAIRS



**MARTIN BERGERON**  
Canadian Remote Sensing Society (CRSS) representative



**LAURENT GIUGNI**  
L'Association Québécoise de Télédétection President (LAQT)



**PATRICK PLOURDE**  
Advanced SAR (ASAR) Workshop Representative

# TANT D'ÉNIGMES ~~NON~~ RÉSOLUES.



Exploration des confins de l'espace, observation de notre Terre, cartographie de chaque étoile de notre galaxie, recensement des arbres d'Amazonie: nous contribuons à maints égards à apporter des réponses aux grandes questions que se pose l'humanité depuis plus d'un demi-siècle. Nos technologies spatiales ont eu un impact exponentiel sur notre quotidien - de notre façon de préserver notre planète à celle de nous connecter. Rien d'étonnant à ce que les esprits les plus aiguisés à travers le monde fassent appel à nous. Question suivante ?

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## PROGRAMME EN UN COUP D'OEIL PROGRAM AT A GLANCE

### AUTRES ÉVÉNEMENTS – LUNDI 19 JUIN 2017 OTHER EVENTS – MONDAY, JUNE 19, 2017

HEURE / TIME	ÉCOLE D'ÉTÉ / SUMMER SCHOOL SH-3620 (UQAM)	HEURE / TIME	DÉMONSTRATIONS DE DRONES / UAVS DEMONSTRATION DRONE VOLT À LAVAL
8H45 - 9H00	BIENVENUE / WELCOME (Prof. Brigitte Leblon)	8H45	Départ du centre de conférences de l'UQAM au 200 Sherbrooke ouest Departure from UQAM Conference Center, 200 Sherbrooke West
9H00 - 10H05	Use of optical and radar remote sensing for environmental applications – Presentation of an Online course for radar remote sensing training	9H45	Arrivée chez Drone Volt Arrival at Drone Volt
10H05 - 10H15	PAUSE / BREAK	10H00	Démonstration des vols et acquisitions d'images UAV Flights and Image Acquisitions' Demonstrations
10H15 - 11H15	Drones in the service of the agriculture sector	12H00	DÎNER (INCLU) / LUNCH (INCLUDED)
11H15 - 12H15	Imagerie hyperspectrale visible, proche-infrarouge et thermique en milieu urbain	12H30	Démonstration des vols et acquisitions d'images UAV Flights and Image Acquisitions' Demonstrations
12H15 - 13H15	DÎNER / LUNCH	15H45	Cocktail réseautage Networking Cocktail
13H15 - 14H15	SAR-EDU – An Education Initiative for Applied Radar Remote Sensing on behalf of DLR	17H00	Départ vers le centre de conférences Departure to Conference Center
14H15 - 15H15	Remote sensing of vegetation		
15H15 - 15H30	PAUSE / BREAK		
15H30 - 16H30	Hyperspectral image analysis – examples from the Mer Bleue Arctic Surrogate Simulation Site		
16H30 - 17H00	Conclusion – Diplôme – Photo de groupe Wrap-up – Degree presentation – Picture		
18H00 - 19H30	POINT DE PRESSE sur les inondations du Québec au printemps 2017 et ANNONCE DE L'OUVERTURE DU SOMMET D'OBSERVATION DE LA TERRE Salle / room: Agora		

JOUR 1 – MARDI 20 JUIN 2017 DAY 1 – TUESDAY, JUNE 20, 2017							JOUR 1 – MARDI 20 JUIN 2017 DAY 1 – TUESDAY, JUNE 20, 2017						
PROGRAMME EN UN COUP D'OEIL / PROGRAM AT A GLANCE	SESSION	SALLE / ROOM					SALLE / ROOM					PROGRAMME EN UN COUP D'OEIL / PROGRAM AT A GLANCE	
		AMPHI.	1 : SH-R810	2 : SH-2420	3 : SH-3620	4 : SH-3420	5 : SH-3140	6 : SH-3120	7 : SH-3220	8 : SH-2620	AGORA	CHAUFFERIE	
	7H30 - 17H00	INSCRIPTION / REGISTRATION Hall d'entrée UQAM (pavillon SH) /UQAM Entrance Hall (SH Building)					INSCRIPTION / REGISTRATION Hall d'entrée UQAM (pavillon SH) /UQAM Entrance Hall (SH Building)						
	PLÉNIÈRE D'OUVERTURE PLENARY SESSION 9H - 10H30	Conférenciers d'honneur Keynote speakers											
	10H30 - 11H00	PAUSE / BREAK Salle / Room : Polyvalente					PAUSE / BREAK Salle / Room : Polyvalente						
	#1 11H - 12H20	Session Plénière ASAR ASAR Plenary Session	Application des drones en agriculture UAV in agriculture	Forêts Forest	Champs pétroliers et sables bitumineux Oil Field and Oil Sand Monitoring	Utilisation du Lidar pour l'inventaire et l'éologie forestière #1 Use of Lidar in forest inventory and ecology #1						Atelier Télédétection et incendies de forêt Wildfire Remote Sensing Workshop	
	12H20 - 13H30	DÎNER / LUNCH Salle / Room : Polyvalente					DÎNER / LUNCH Salle / Room : Polyvalente					Atelier sur la Commercialisation de l'Observation de la Terre Commercialization of Earth Observation Workshop	
	12H30 - 13H00	Conférencier d'honneur Keynote speaker			Table ronde: défis pour la prochaine génération de satellites RSO Panel discussion: challenges for next generation SAR Boîtes repas disponibles / Lunch box available								
	#2 13H30 - 14H50	Missions RSO #1 SAR Missions #1	Application des drones en écologie Ecological applications of UAVs	Atmosphère Atmosphere	Cryosphère Cryosphere	Utilisation du Lidar pour l'inventaire et l'éologie forestière #2 Use of Lidar in forest inventory and ecology #2	Développement urbain Urban Development					Atelier Télédétection et incendies de forêt Wildfire Remote Sensing Workshop	
	14H50 - 15H30	PAUSE / BREAK Salle / Room : Polyvalente					PAUSE / BREAK Salle / Room : Polyvalente					Atelier sur la Commercialisation de l'Observation de la Terre Commercialization of Earth Observation Workshop	
	#3 15H30 - 16H50	Missions RSO #2 SAR Missions #2	Applications des drones le long des côtes UAVs along the coast	Méthodes de classification Classification methods	Plateformes d'accès aux mégadonnées et services d'Observation de la Terre EO big data and services access platforms	Utilisation du Lidar pour l'inventaire et l'éologie forestière #3 Use of Lidar in forest inventory and ecology #3	Milieux humides Wetland					Atelier Télédétection et incendies de forêt Wildfire Remote Sensing Workshop	
	PLÉNIÈRE DE CLÔTURE PLENARY SESSION 17H00 - 18H00	Conférencier d'honneur Keynote speaker										Atelier sur la Commercialisation de l'Observation de la Terre Commercialization of Earth Observation Workshop	
18H00 - 20H00	COCKTAIL D'OUVERTURE / ICE-BREAKER COCKTAIL Salle / Room : Agora					COCKTAIL D'OUVERTURE / ICE-BREAKER COCKTAIL Salle / Room : Agora							

**JOUR 2 – MERCREDI 21 JUIN 2017**  
**DAY 2 – WEDNESDAY, JUNE 21, 2017**

<b>SESSION</b>	<b>SALLE / ROOM</b>				
	<b>AMPHI.</b>	<b>1 : SH-R810</b>	<b>2 : SH-2420</b>	<b>3 : SH-3620</b>	<b>4 : SH-3420</b>
<b>8H00 - 17H00</b>	<b>INSCRIPTION / REGISTRATION</b> Hall d'entrée UQAM (pavillon SH) /UQAM Entrance Hall (SH Building)				
<b>PLÉNIÈRE D'OUVERTURE</b> <b>PLENARY SESSION</b> <b>8H45 - 10H30</b>	Table ronde sur les bénéfices sociétaux en observation de la Terre Keynote panel on Societal benefits of Earth Observation				
<b>10H30 - 11H00</b>	<b>PAUSE / BREAK</b> Salle / Room : Polyvalente				
<b>#4</b> <b>11H - 12H20</b>	Mission de la Constellation Radarsat #1 RADARSAT Constellation Mission #1	Méthodes polarimétriques avancées Advanced Polarimetric methods	Télédétection hyperfréquence de la cryosphère #1 Microwave remote sensing of the cryosphere #1	Interférométrie RSO appliquée aux géorisques InSAR applied to Geohazards	Sécurité maritime et applications #1 Maritime Security and Applications #1
<b>12H20 - 13H30</b>	<b>DÎNER / LUNCH</b> Salle / Room : Polyvalente				
<b>12H30 - 13H00</b>					
<b>#5</b> <b>13H30 - 14H50</b>	Mission de la Constellation Radarsat #2 RADARSAT Constellation Mission #2	PolinSAR PolinSAR	Télédétection hyperfréquence de la cryosphère #2 Microwave remote sensing of the cryosphere #2	Coopération JAXA-ASC dans la surveillance des désastres à l'aide des satellites RSO #1 JAXA-CSA Co-operation in SAR Satellite disaster monitoring #1	Sécurité maritime et applications #2 Maritime Security and Applications #2
<b>14H50 - 15H30</b>	<b>PAUSE / BREAK</b> Salle / Room : Polyvalente				
<b>#6</b> <b>15H30 - 16H50</b>	Missions RSO #3 SAR Missions #3	TraITEMENT d'IMAGES polarimétriques Polarimetric SAR Processing	Télédétection hyperfréquence de la cryosphère #3 Microwave remote sensing of the cryosphere #3	Coopération JAXA-ASC dans la surveillance des désastres à l'aide des satellites RSO #2 JAXA-CSA Co-operation in SAR Satellite disaster monitoring #2	Sécurité maritime et applications #3 Maritime Security and Applications #3
<b>PLÉNIÈRE DE CLÔTURE</b> <b>PLENARY SESSION</b> <b>17H00 - 18H00</b>	Conférencier d'honneur Keynote speaker				
<b>18H30 - 23H00</b>	<b>SOUPER BANQUET / DINNER BANQUET</b> Offert par / Offered by: MDA Systems Ltd. Salle / Room: Hall Panoramique, Centre des sciences de Montréal				

HORAIRE  
DES NAVETTES  
À LA P. 19  
SHUTTLE BUS  
SCHEDULE  
ON P. 19

**JOUR 2 – MERCREDI 21 JUIN 2017**  
**DAY 2 – WEDNESDAY, JUNE 21, 2017**

<b>SALLE / ROOM</b>					
<b>5 : SH-3140</b>	<b>6 : SH-3120</b>	<b>7 : SH-3220</b>	<b>8 : SH-2620</b>	<b>AGORA</b>	<b>CHAUFFERIE</b>
<b>INSCRIPTION / REGISTRATION</b> Hall d'entrée UQAM (pavillon SH) /UQAM Entrance Hall (SH Building)					Atelier Une planète – Une santé Workshop One Earth – One Health
<b>PAUSE / BREAK</b> Salle / Room : Polyvalente					
Cartographie des zones inondables #1 Flood plain mapping with EO #1		Innovation dans l'utilisation des drones en sciences naturelles Innovative UAVs uses in natural sciences	Atelier Télédétection et incendies de forêt Wildfire Remote Sensing Workshop		Atelier Une planète – Une santé Workshop One Earth – One Health
<b>DÎNER / LUNCH</b> Salle / Room : Polyvalente					
				Conférencier d'honneur Keynote speaker	
Cartographie des zones inondables #2 Flood plain mapping with EO #2	Q&R étudiant Student Q&A	RSO pour la sécurité SAR for safety and security	Atelier Télédétection et incendies de forêt Wildfire Remote Sensing Workshop		Atelier Une planète – Une santé Workshop One Earth – One Health
<b>PAUSE / BREAK</b> Salle / Room : Polyvalente					
Cartographie des zones inondables #3 Flood plain mapping with EO #3		Drones pour le diagnostic, le suivi, et la gestion des forêts. UAV for forest assessment, monitoring and management	Atelier Télédétection et incendies de forêt Wildfire Remote Sensing Workshop		Atelier Une planète – Une santé Workshop One Earth – One Health
<b>SOUPER BANQUET / DINNER BANQUET</b> Offert par / Offered by: MDA Systems Ltd. Salle / Room: Hall Panoramique, Centre des sciences de Montréal					

**JOUR 3 – JEUDI 22 JUIN 2017**  
**DAY 3 – THURSDAY, JUNE 22, 2017**

<b>SESSION</b>	<b>SALLE / ROOM</b>				
	<b>AMPHI.</b>	<b>1 : SH-R810</b>	<b>2 : SH-2420</b>	<b>3 : SH-3620</b>	<b>4 : SH-3420</b>
<b>7H45 - 17H00</b>	<b>INSCRIPTION / REGISTRATION</b> Hall d'entrée UQAM (pavillon SH) /UQAM Entrance Hall (SH Building)				
<b>PLÉNIÈRE D'OUVERTURE PLENARY SESSION 8H15 - 9H00</b>	Conférenciers d'honneur Keynote speakers				
#7 <b>9H10 - 10H30</b>	Télédétection RSO de prochaine génération pour les glaces marines et de leurs propriétés #1 Next-generation SAR remote sensing of sea ice and ice features #1	Collaboration ASC-DLR: Synergie des données en bande C & X #1 CSA-DLR Collaboration: C & X Band Data Synergies #1	Calibration et validation #1 Calibration & Validation #1	Biodiversité Biodiversity	Milieux humides et eaux intérieurs Inland waters and Wetlands
<b>10H30 - 11H00</b>	<b>PAUSE / BREAK</b> Salle / Room : Polyvalente				
#8 <b>11H00 - 12H20</b>	L'histoire de la télédétection au Canada History of Remote Sensing in Canada	Collaboration ASC-DLR: Synergie des données en bande C & X #2 CSA-DLR Collaboration: C & X Band Data Synergies #2	Calibration et validation #2 Calibration & Validation #2	Surveillance RSO des milieux humides #1 SAR Water and Wetlands Monitoring #1	Imageur Canadien pour les eaux côtières et intérieures Canadian Imager for coastal and inland waters
<b>12H20 - 13H30</b>	<b>DÎNER / LUNCH</b> Salle / Room : Polyvalente				
<b>12H30 - 13H00</b>	Conférenciers d'honneur Keynote speakers				
#9 <b>13H30 - 14H50</b>	Télédétection RSO de prochaine génération pour les glaces marines et de leurs propriétés #2 Next-generation SAR remote sensing of sea ice and ice features #2	Collaboration ASC-DLR: Synergie des données en bande C & X #3 CSA-DLR Collaboration: C & X Band Data Synergies #3	Aire de conservation de la Mer Bleue pour la calibration/validation de satellites optiques Mer Bleue Peatlands for Optical Satellite Cal/Val	Surveillance RSO des milieux humides #2 SAR Water and Wetlands Monitoring #2	Eaux côtières Coastal waters
<b>14H50 - 15H30</b>	<b>PAUSE / BREAK</b> Salle / Room : Polyvalente				
#10 <b>15H30 - 16H50</b>	Télédétection RSO de prochaine génération pour les glaces marines et de leurs propriétés #3 Next-generation SAR remote sensing of sea ice and ice features #3	Collaboration ASC-DLR: Synergie des données en bande C & X #4 CSA-DLR Collaboration: C & X Band Data Synergies #4	Géologie Geology	Surveillance RSO des milieux humides #3 SAR Water and Wetlands Monitoring #3	Bathymétrie et température de surface des océans Bathymetry and SST
<b>PLÉNIÈRE DE CLÔTURE PLENARY SESSION 17H00 - 18H00</b>	Conférencier d'honneur Keynote speaker				

**JOUR 3 – JEUDI 22 JUIN 2017**  
**DAY 3 – THURSDAY, JUNE 22, 2017**

<b>SESSION</b>	<b>SALLE / ROOM</b>					
	<b>5 : SH-3140</b>	<b>6 : SH-3120</b>	<b>7 : SH-3220</b>	<b>8 : SH-2620</b>	<b>AGORA</b>	<b>CHAUFFERIE</b>
<b>INSCRIPTION / REGISTRATION</b> Hall d'entrée UQAM (pavillon SH) /UQAM Entrance Hall (SH Building)					Assemblée générale des membres de l'AGMQ AGMQ Members general assembly	
<b>L'observation de la Terre en français Earth Observation in French</b>					Applications polarimétriques avancées Advanced Polarimetric Applications	Atelier Télédétection et incendies de forêt Wildfire Remote Sensing Workshop
<b>Colloque AGMQ: Les technologies sur l'Observation de la Terre appliquées au monde municipal et régional AGMQ Seminar: Earth observation technologies applied to the municipal and regional world</b>					Colloque AGMQ: Vitrine technologique AGMQ Seminar: technology showcase	
<b>PAUSE / BREAK</b> Salle / Room : Polyvalente						
<b>RSO pour la caractérisation du pergélisol RADARSAT SAR for Permafrost Characterization</b>					Applications de la constellation RADARSAT RADARSAT Constellation Mission Applications	Atelier Télédétection et incendies de forêt Wildfire Remote Sensing Workshop
<b>Colloque AGMQ: Les technologies sur l'Observation de la Terre appliquées au monde municipal et régional AGMQ Seminar: Earth observation technologies applied to the municipal and regional world</b>					Colloque AGMQ: Vitrine technologique AGMQ Seminar: technology showcase	
<b>Rencontre d'association : AGA SCT Meeting of association: CRSS AGM</b>					<b>DÎNER / LUNCH</b> Salle / Room : Polyvalente	
<b>Agriculture #1</b>						
<b>Polarimétrie compacte Compact Polarimetry</b>					<b>Atelier Télédétection et incendies de forêt Wildfire Remote Sensing Workshop</b>	<b>Colloque AGMQ: Les technologies sur l'Observation de la Terre appliquées au monde municipal et régional AGMQ Seminar: Earth observation technologies applied to the municipal and regional world</b>
<b>Colloque AGMQ: Vitrine technologique AGMQ Seminar: technology showcase</b>						
<b>Rencontres d'associations : AGA de l'AQT Meetings of associations: l'AQT AGM</b>					<b>PAUSE / BREAK</b> Salle / Room : Polyvalente	
<b>Agriculture #2</b>					<b>Atelier Télédétection et incendies de forêt Wildfire Remote Sensing Workshop</b>	<b>Colloque AGMQ: Les technologies sur l'Observation de la Terre appliquées au monde municipal et régional AGMQ Seminar: Earth observation technologies applied to the municipal and regional world</b>
<b>Colloque AGMQ: Vitrine technologique AGMQ Seminar: technology showcase</b>						

**AUTRES ÉVÉNEMENTS – VENDREDI 23 JUIN 2017**  
**OTHER EVENTS – FRIDAY, JUNE 23, 2017**

HEURE / TIME	TUTORIAL SAR SH-3620 (UQAM)
8H00 - 9H00	INSCRIPTION / REGISTRATION
9H00 - 10H30	Interferometric Processing
10H30 - 11H00	PAUSE / BREAK
11H00 - 12H30	Space-based GMTI radar
12H30 - 13H30	DÎNER / LUNCH
13H30 - 15H30	The role of Spaceborne SAR in Cryosphere Science

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- ✓ Cartography
- ✓ Climate Change
- ✓ Computing in the Cloud
- ✓ Crime Mapping/Modelling
- ✓ Data Capture/Collection
- ✓ DEM- Digital Elevation Model
- ✓ DGPS - Differential GPS
- ✓ Digital City Models
- ✓ Digital Mapping
- ✓ Digital Rights Management
- ✓ Disaster Management/Monitoring
- ✓ DSM - Digital Surface Model
- ✓ DTM - Digital Terrain Model
- ✓ Dynamic Mapping
- ✓ Earth Observation
- ✓ Emergency Services
- ✓ ENC - Electronic Navigation Chart
- ✓ Environmental Monitoring
- ✓ Galileo
- ✓ Geo-ICT
- ✓ Geodesy
- ✓ Georeferencing
- ✓ Geosciences
- ✓ Geospatial Image Processing
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- ✓ GIS in Agriculture & Forestry
- ✓ GLONASS
- ✓ GMES
- ✓ GNSS
- ✓ GPS
- ✓ GSDI
- ✓ Hardware
- ✓ Hydrography
- ✓ Hyperspectral Imaging
- ✓ Image Analysis
- ✓ INSPIRE
- ✓ Integration
- ✓ Interoperability & Open Standards
- ✓ Land Information Systems
- ✓ Laser Scanning
- ✓ LBS
- ✓ LiDAR
- ✓ Mapping Software
- ✓ Marine Tracking & Navigation
- ✓ Mobile GIS/Mapping
- ✓ Municipal GIS
- ✓ Navigation
- ✓ Network Topology
- ✓ NSDI
- ✓ Open GIS
- ✓ Photogrammetric
- ✓ Photogrammetry
- ✓ Point Clouds
- ✓ Property Information Systems
- ✓ Radio Navigation
- ✓ Remote Sensing
- ✓ Risk Management
- ✓ RTK (Real Time Kinematic) Surveying
- ✓ Satellite Imagery/Navigation
- ✓ Scanning Technology
- ✓ SDI - Spatial Data Infrastructures
- ✓ Smart Grids
- ✓ Software
- ✓ Surveying Instrumentation
- ✓ Surveying Technology Sensor
- ✓ Telematics
- ✓ Topographic Mapping
- ✓ Total Station
- ✓ Tracking & Route Planning
- ✓ Transport
- ✓ Utilities GIS
- ✓ Vehicle Tracking & Navigation
- ✓ VRS - Virtual Reference Station
- ✓ Web Mapping

## Sectors covered:

- ✓ Aerospace
- ✓ Agriculture
- ✓ Archaeology & Heritage
- ✓ Architecture
- ✓ Biosecurity
- ✓ Business Security/Service
- ✓ Central/Local/Regional Government
- ✓ Construction
- ✓ Consulting Services
- ✓ Cyber Security
- ✓ Defence
- ✓ Education
- ✓ Emergency Services
- ✓ Energy Utility
- ✓ Engineering
- ✓ Environmental Management
- ✓ Environmental Monitoring
- ✓ Financial Services
- ✓ Fisheries
- ✓ Forestry Management
- ✓ Geosciences
- ✓ Healthcare
- ✓ Infrastructure Protection
- ✓ Insurance
- ✓ Manufacturing
- ✓ Marine
- ✓ Military
- ✓ Mining
- ✓ Natural Resource Management
- ✓ Oil & Gas
- ✓ Property
- ✓ Public Safety/Works
- ✓ Retail
- ✓ Shipping
- ✓ Software Development
- ✓ Technical Services
- ✓ Telecommunications
- ✓ Tourism/Travel
- ✓ Training
- ✓ Transport
- ✓ Utilities (Energy & Water)

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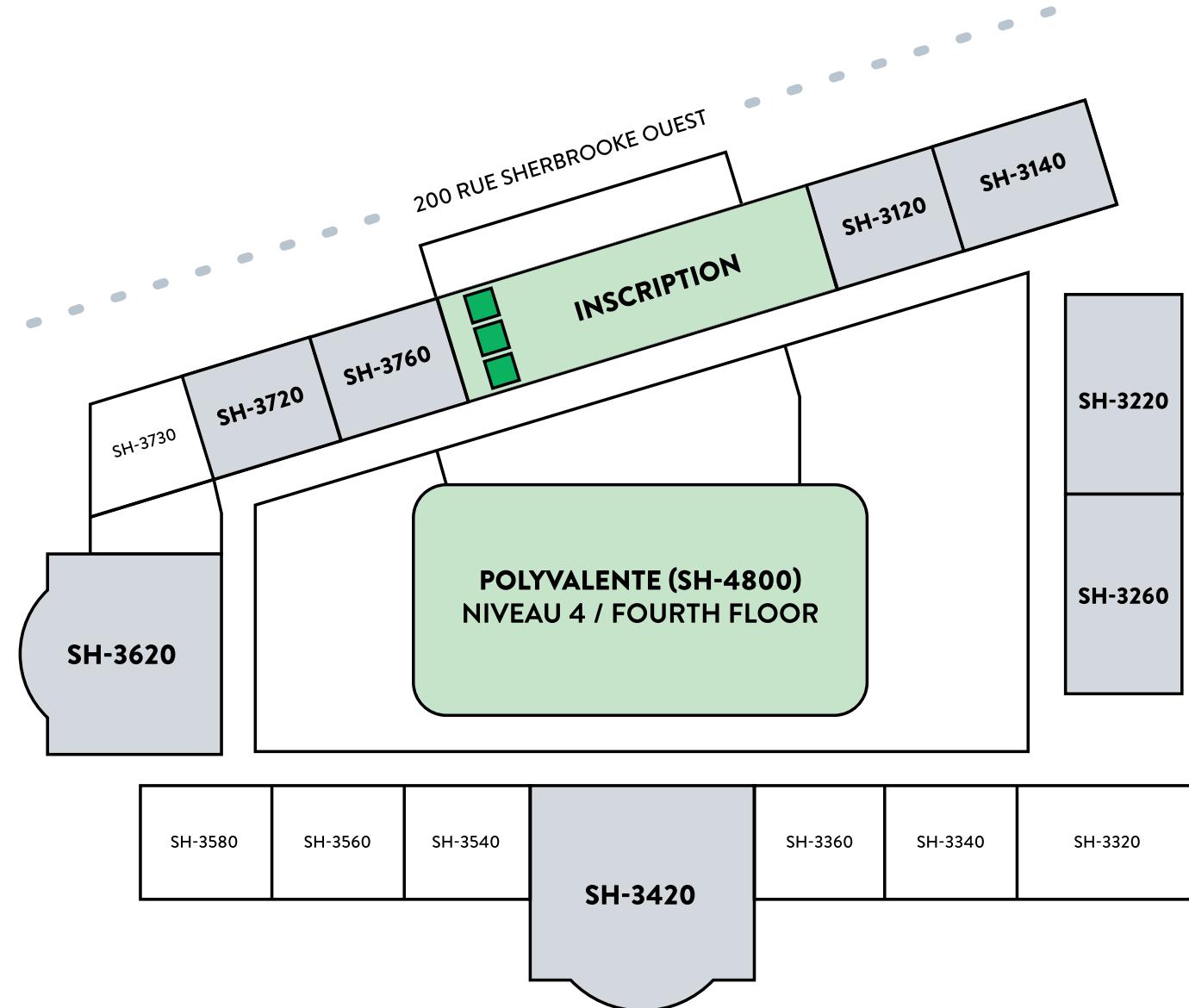
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# PLANS DU SITE FLOOR PLANS



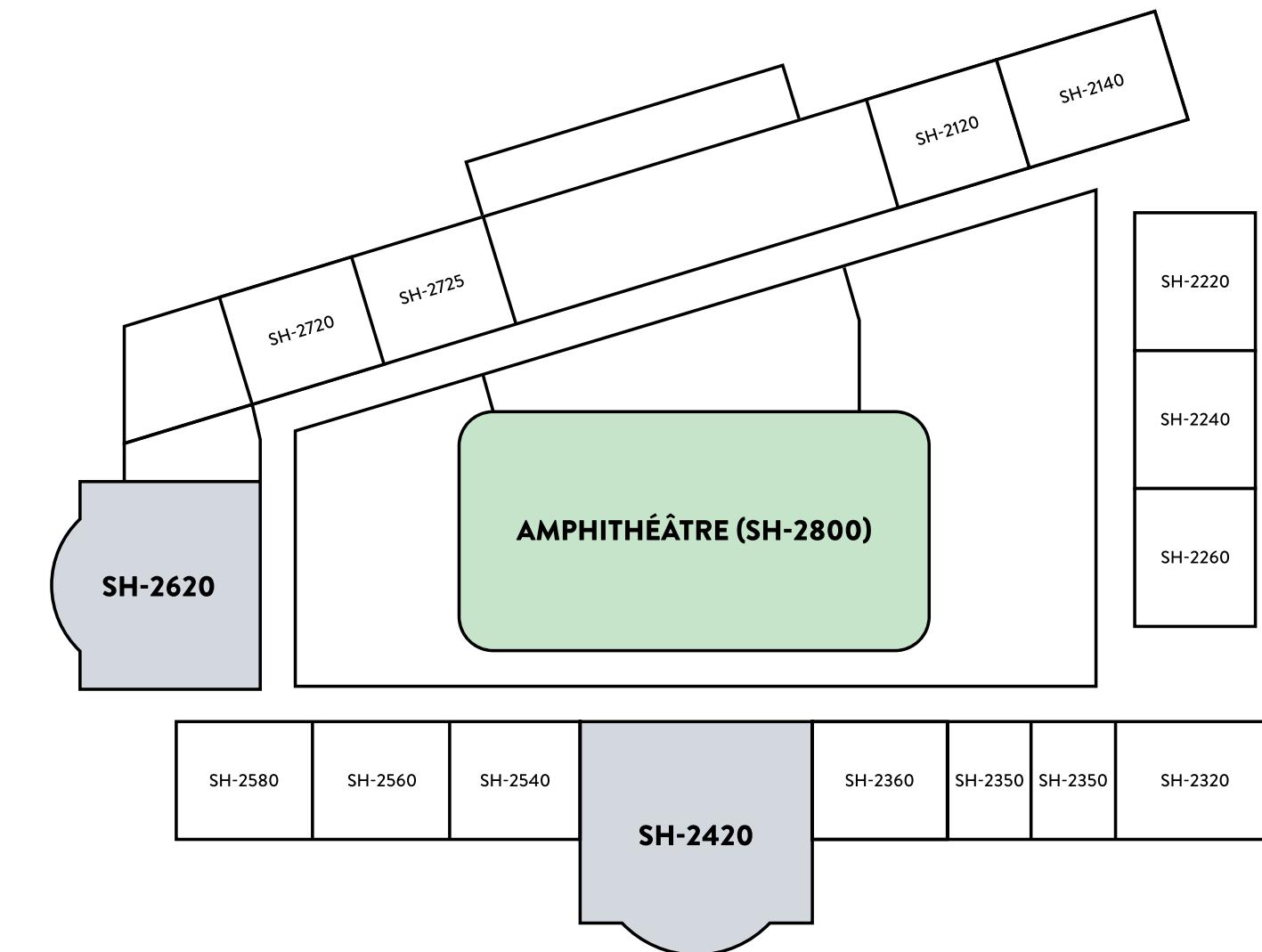
NIVEAU 3 / THIRD FLOOR

## HEURES D'OUVERTURE DE L'INSCRIPTION:

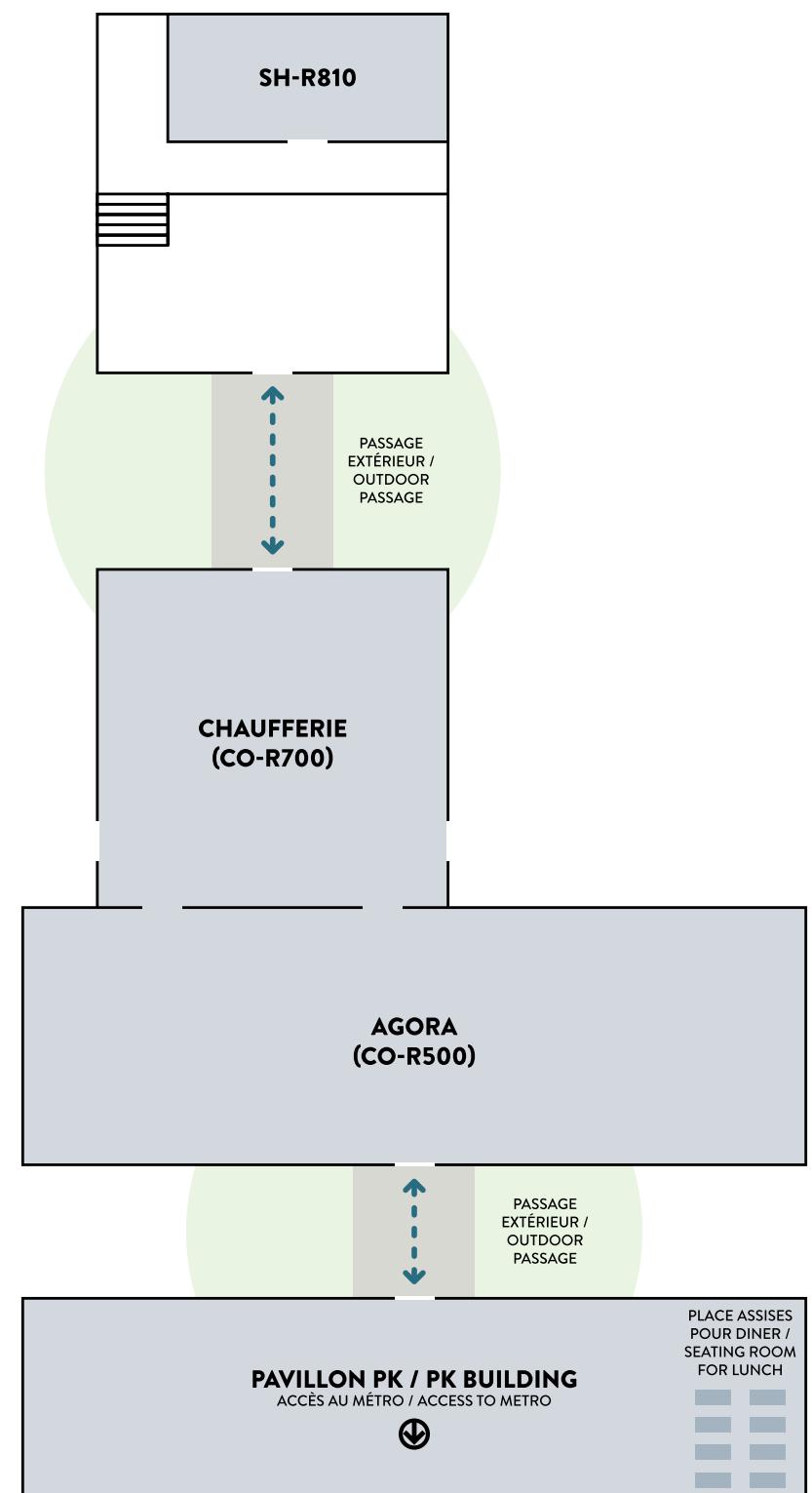
20 JUIN – 7H30 À 17H00  
21 JUIN – 8H00 À 17H00  
22 JUIN – 7H45 À 17H00

## REGISTRATION DESK OPENING HOURS:

JUNE 20<sup>TH</sup> – 7:30 AM TO 5:00 PM  
JUNE 21<sup>ST</sup> – 8:00 AM TO 5:00 PM  
JUNE 22<sup>ND</sup> – 7:45 AM TO 5:00 PM



NIVEAU 2 / SECOND FLOOR



NIVEAU 1 / FIRST FLOOR

# ÉVÉNEMENTS SOCIAUX SOCIAL EVENTS

MARDI 20 JUIN / TUESDAY, JUNE 20

## COCKTAIL

Le Sommet sur l'Observation de la Terre vous invite à venir réseauter avec vos pairs le mardi 20 juin à partir de 18h.

L'Agora du Cœur des sciences sera transformée en espace lounge pour l'occasion où cocktail et bouchées seront servis. Un DJ rythmera également la soirée!

On vous y attend!  
Gratuit avec l'inscription au Sommet

## COCKTAIL

The Earth Observation Summit invites you to meet and network with your peers on Tuesday, June 20 from 6 pm.

The Agora room in Cœur des sciences will be transformed into a lounge for the evening, where cocktails and appetizers will be served. A DJ will also add a beat to the evening!

See you there!  
Free with registration to the Summit

MERCREDI 21 JUIN / WEDNESDAY, JUNE 21

## SOIRÉE BANQUET

Le Sommet sur l'Observation de la Terre est fier de vous convier à une soirée banquet le mercredi 21 juin prochain au Hall panoramique du Centre des Sciences de Montréal.

Nous vous invitons à venir vivre une soirée inspirée des marchés publics du Vieux-Port de Montréal où saveurs et musiques traditionnelles stimuleront vos sens. Nous vous invitons également à venir féliciter avec nous les récipiendaires des prix annuels de l'Association Québécoise de Télédétection (AQT) et de la Société Canadienne de Télédétection (SCT). Nous vous attendons avec impatience pour une soirée riche en souvenirs à compter de 18h30.

Inscription obligatoire (\$)

## BANQUET DINNER

The Earth Observation Summit 2017 is proud to invite you to the Banquet Dinner that will be held on Wednesday, June 21 at the Panoramic Hall of the Montreal Science Center.

Inspired by the public markets of the Old port of Montreal, come enjoy good food and traditional music that will stimulate your senses. Also, please join us in congratulating the recipients of the annual awards of the Association Québécoise de Télédétection (AQT) and the Canadian Remote Sensing Society (CRSS). We are looking forward to your participation to an eventful evening starting at 6:30PM.

Registration required (\$)

LA SOIRÉE BANQUET  
VOUS EST OFFERT PAR /  
THE BANQUET DINNER IS  
OFFERED BY:



LE FESTIN DE LA SOIRÉE  
SERAS CONCOCTÉ PAR /  
THE EVENING'S FEAST  
WILL BE PREPARED BY:



HORAIRE  
DES NAVETTES  
SHUTTLE BUS  
SCHEDULE

DÉPART / DÉPARTURE:  
200 RUE SHERBOOKE OUEST  
18h00 — Navette 1 / Shuttle 1  
18h15 — Navette 2 / Shuttle 2  
18h30 — Navette 3 / Shuttle 3

Place limitée par navette / limited space per shuttle bus

RETOUR / RETURN:  
4 RUE DE LA COMMUNE OUEST  
22h00 — Navette 1 / Shuttle 1  
22h30 — Navette 2 / Shuttle 2  
23h00 — Navette 3 / Shuttle 3

Place limitée par navette / limited space per shuttle bus

# AUTRES ÉVÉNEMENTS OTHER EVENTS

LUNDI 19 JUIN / MONDAY, JUNE 19

## ÉCOLE D'ÉTÉ

L'école d'été a pour but de fournir aux participants la possibilité d'acquérir des connaissances sur les applications des différentes technologies en télédétection dans plusieurs domaines qui sont données par sept experts dans leur domaine.

Inscription obligatoire (\$)

## DÉMONSTRATION DE DRONES ET D'ACQUISITIONS D'IMAGES

Le centre de géomatique du Québec (CGQ) et le Centre d'expertise des drones (CED), en collaboration avec le Sommet OT, présentent un atelier de démonstration de drones qui se tiendra chez Drone Volt Canada à Laval. C'est une belle occasion réseautage vous permettant de participer et/ou d'assister à des démonstrations de drones et d'acquisitions d'images multi capteurs de compagnies qui proposent des services d'acquisition d'image par drone.

Inscription obligatoire (\$)

## VISITE SCOLAIRE

Dans le cadre des activités entourant le Sommet sur l'Observation de la Terre, l'Agence spatiale canadienne organise une visite de ses installations à Saint-Hubert pour un groupe de 80 étudiants de niveau secondaire IV et V. Le but de la visite est de stimuler leur intérêt à la Science, la Technologie, à l'Ingénierie et aux Mathématiques (STEM). Les étudiants auront l'opportunité de visiter certains laboratoires d'entraînement de robotique spatiale, d'avoir une démonstration des derniers rovers, de visiter les salles d'exposition et bien plus!

Sur invitation seulement

## SUMMER SCHOOL

The Summer School aims at providing to the attending participants the opportunity to gain knowledge about applications of various remote sensing technologies in several domains that are given by seven experts in their area.

Registration required (\$)

## UAV FLIGHTS AND IMAGE ACQUISITIONS' DEMONSTRATIONS

The Quebec Geomatics Center (CGQ) and the Drone Expertise Center (CED) in collaboration with the EO Summit 2017, present UAV flights and image Acquisitions' Demonstrations that will be held at Drone Volt Canada in Laval. It is a great networking opportunity to participate and/or attend UAV flights and multi sensors image acquisitions' demonstrations provided by small businesses offering drone services.

Registration required (\$)

## SCHOOL VISIT

In the context of the activities of the EO Summit 2017 that will be held in Montreal, 20-22 June, the Canadian Space Agency is preparing a visit of its installations in Saint-Hubert for a group of 80 High School students (grades 10-11). The goal of the visit is to encourage their interest in Science, Technology, engineering and Maths (STEM). Students will have the chance to visit the astronaut's space robotics training labs, to have a demo of the latest rovers, to visit the showrooms and much more!

Upon invitation only

## EXCURSION SCIENTIFIQUE – LES ÎLOTS DE CHALEUR URBAINS

« Pourquoi fait-il parfois si chaud au centre-ville ou en banlieue? Comment la morphologie urbaine et les matériaux influencent-ils la température? Durant cette visite gratuite d'une heure, venez découvrir comment l'aménagement urbain a un impact important sur notre confort thermique et quels sont les moyens de rafraîchir notre ville! »

Olivier Canuel Ouellet est finissant à la maîtrise de géographie à l'UQAM. Il étudie depuis deux ans le comportement thermique des matériaux et la formation des îlots de chaleur urbains de la région métropolitaine de Montréal. Yves Baudouin est professeur au Département de géographie de l'UQAM. Il est spécialiste en géomatique et des îlots de chaleurs en milieux urbains.

Départ à l'entrée principale lors des pauses du mardi 14h50, du mercredi 10h30 et 14h50, et du jeudi 10h30. Environ 1 heure.

Gratuit / Nombre limité de participants

## SCIENCE EXCURSION – URBAN HEAT ISLANDS

« Why is it so hot downtown and even in the suburbs? How is the urban morphology and materials influencing the temperature? In this free one hour tour, discover how urban configuration impacts our thermal wellbeing and what are the means to cool down our cities! »

Olivier Canuel Ouellet is a master student in geography at UQAM. He has been studying the thermal behavior of materials and the formation of urban heat islands in the greater Montréal. Yves Baudouin is professor at the geography Department of UQAM. He is a specialist in geomatics and urban heat islands.

Departing from the main entrance at the breaks on Tuesday 2:50PM, Wednesday 10:30AM and 2:50PM, and on Thursday 10:30 AM. Approx. 1 hour.

Free / Limited number of participants

Des responsables de municipalités touchées et certains experts impliqués à différents niveaux au cours des inondations viendront discuter de leur utilisation des données géospatiales et des outils de la géomatique dans la gestion et la prise de décisions. Les intervenants partageront leurs expériences notamment sur l'importance de l'acquisition et l'utilisation d'images satellites, de photographies aériennes, des systèmes d'information géographique, des drones et autres plateformes d'observation de la Terre.

## POINT DE PRESSE: RÔLE CRUCIAL DES DONNÉES D'OBSERVATION LA TERRE LORS DES INONDATIONS DU QUÉBEC AU PRINTEMPS 2017

L'AQT, l'AGMQ, la SCT et l'UQAM présentent le 19 juin à 18h un panel sur le rôle crucial qu'ont joué les données d'observation de la Terre dans les inondations du printemps 2017 au Québec. Il servira de lancement du Sommet sur l'Observation de Terre.

Gratuit / free. Presentation in French only. Questions in English are welcome.

VENDREDI 23 JUIN / FRIDAY, JUNE 23

## FORMATION RSO

Durant cette activité spéciale, trois experts donneront des formations pour mieux expliquer quelques techniques RSO avancées et donner un aperçu de leur applications. Le premier tutoriel sera présenté par Gabriel Gosselin de PCI. Le tutoriel démontrera l'utilisation du logiciel PCI Geomatica pour performer l'interférométrie radar. La deuxième présentation sera donnée par Chuck Livingstone sur le GMTI. Le dernier tutoriel présenté par Bernd Scheuchl portera sur le rôle des RSO dans la science de la cryosphère.

Inscription obligatoire (\$)

## SAR TUTORIAL SESSIONS

In this special activity, three experts will give tutorials to better understand some of the advanced SAR techniques and provide example of the applications of some of these techniques. The first tutorial will be given by Gabriel Gosselin of PCI. The tutorial will demonstrate the use of the PCI Geomatica software to performed interferometric processing. The second presentation will be given by Chuck Livingstone on GMTI. The last presentation will be given by Bernd Scheuchl on the role of Spaceborne SAR in Cryosphere Science.

Registration required (\$)

# PLAN DU SALON DES EXPOSANTS TRADE SHOW FLOOR PLAN

SALLE / ROOM  
POLYVALENTE (SH-4800)

## LISTE DES EXPOSANTS / EXHIBITORS LIST

16	AGENCE SPATIALE CANADIENNE / CANADIAN SPACE AGENCY
7	AGMQ
11-12	AIRBUS
14	AQT
20	C-CORE
3	EFFIGIS
22	EXPOSITION DE L'ESPACE À L'ASSIETTE / SPACE TO SPOON EXHIBITION MUSÉE DE L'AGRICULTURE ET ALIMENTATION DU CANADA ET DE L'AGENCE SPATIALE CANADIENNE / CANADA AGRICULTURE AND FOOD MUSEUM AND CANADIAN SPACE AGENCY
9	GHGSAT
10	KEPLER SPACE INC.
2	MDA SYSTEMS LTD.
17	NRCAN
4-5	PCI GEOMATICS
13	SCT
1	SPECTRAL EVOLUTION
21	TAYLOR & FRANCIS
8	UQAM

## HEURES D'OUVERTURE DU SALON D'EXPOSITION:

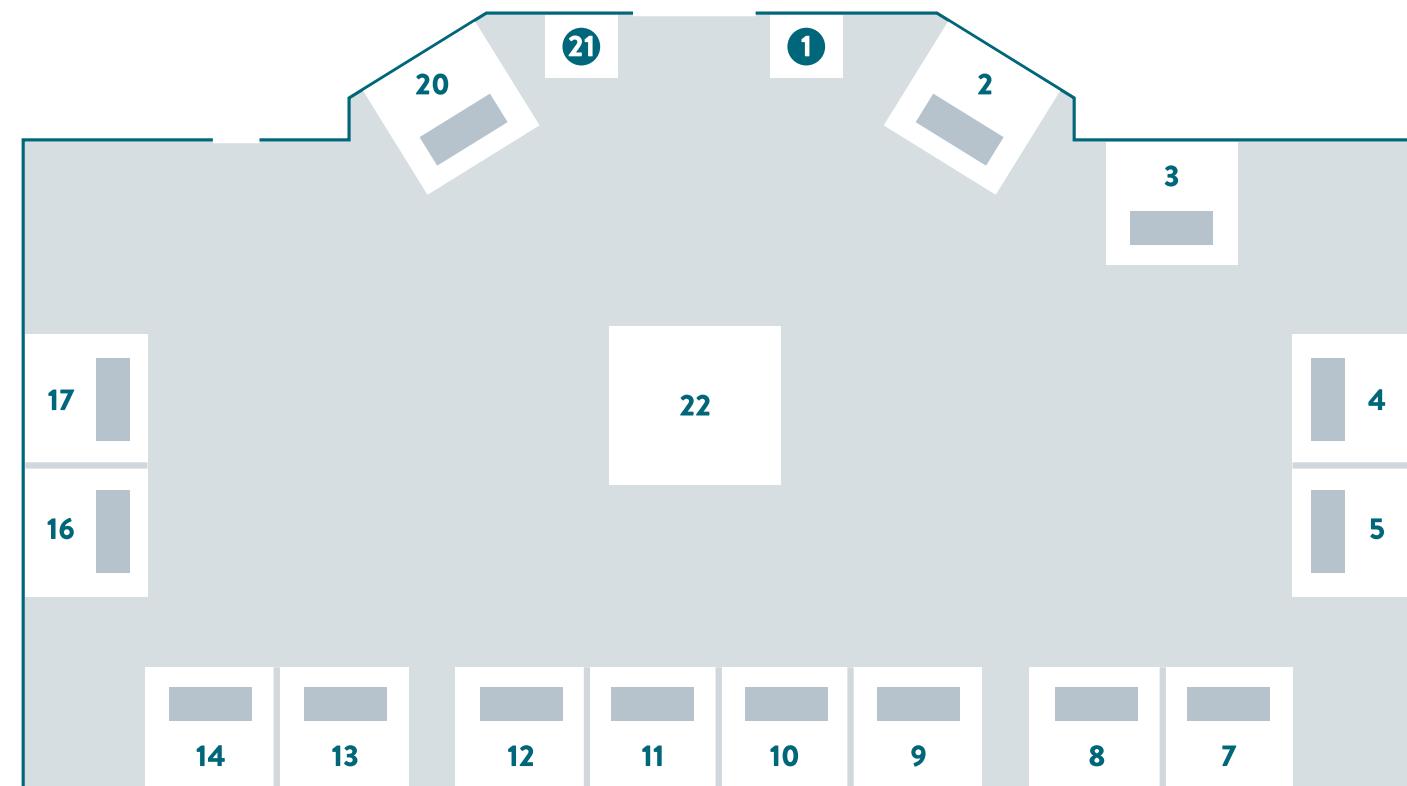
20 JUIN – 10H30 À 15H45  
21 JUIN – 8H00 À 15H45  
22 JUIN – 7H45 À 15H45

Venez visiter les exposants durant le café d'ouverture, les pauses-café ainsi que le dîner. Tous les repas et breuvages seront servis dans le salon d'exposition.

## EXHIBITION OPENING HOURS:

JUNE 20<sup>TH</sup> – 10:30 AM TO 3:45 PM  
JUNE 21<sup>ST</sup> – 8 AM TO 3:45 PM  
JUNE 22<sup>ND</sup> – 7:45 AM TO 3:45 PM

Come visit the exhibitors during the welcoming coffee, coffee-breaks and lunch. All the food and beverage will be served in the Trade show.



# PROGRAMME DÉTAILLÉ DETAILED PROGRAM

## AUTRES ÉVÉNEMENTS – LUNDI 19 JUIN 2017 OTHER EVENTS – MONDAY, JUNE 19, 2017

9:00 - 10:05 | SH-3620

### ÉCOLE D'ÉTÉ #1 / SUMMER SCHOOL 1

Use of optical and radar remote sensing for environmental applications

Dr. Brigitte Leblon & Dr. Armand LaRocque, University of New Brunswick

10:05 - 10:15

### PAUSE / BREAK

10:15 - 11:15 | SH-3620

### ÉCOLE D'ÉTÉ #2 / SUMMER SCHOOL 2

Drones in the service of the agriculture sector

Prof. Karem Chokmani, INRS-ETE

11:15 - 12:15 | SH-3620

### ÉCOLE D'ÉTÉ #3 / SUMMER SCHOOL 3

Visible, near-infrared and thermal hyperspectral imagery in urban areas

Dr. François Cavayas, University of Montreal

12:15 - 13:15

### REPAS / LUNCH

13:15 - 14:15 | SH-3620

### ÉCOLE D'ÉTÉ #4 / SUMMER SCHOOL 4

An Education Initiative for Applied Radar Remote Sensing on behalf of DLR

Prof. Christiane Schmullius, Friedrich-Schiller-University

14:15 - 15:15 | SH-3620

### ÉCOLE D'ÉTÉ #5 / SUMMER SCHOOL 5

Remote sensing of vegetation

Prof. Angela Kross, Concordia University

15:15 - 15:30

### PAUSE / BREAK

15:30 - 16:30 | SH-3620

### ÉCOLE D'ÉTÉ #6 / SUMMER SCHOOL 6

Hyperspectral image analysis – examples from the Mer Bleue Arctic Surrogate Simulation Site

Prof. Margaret Kalacska, McGill University & Dr. Pablo Arroyo, NRC

16:30 - 17:00 | SH-3620

### CONCLUSION, DIPLÔME, PHOTO DE GROUPE / SUMMER SCHOOL WRAP-UP, DEGREE PRESENTATION, PICTURE

JOUR 1 – MARDI 20 JUIN 2017

DAY 1 – TUESDAY, JUNE 20, 2017

## 7:30 - 17:00 | HALL INSCRIPTION / REGISTRATION

## 9:00 - 9:30 | AMPHITHEATRE MOT DE BIENVENUE DU SOMMET OT / EO SUMMIT 2017 WELCOME ADDRESS

## 9:30 - 10:00 | AMPHITHEATRE CONFÉRENCIER D'HONNEUR / KEYNOTE MICHAEL RAST, ESA

ESA program and activities in Earth Observation

## 10:00 - 10:30 | AMPHITHEATRE CONFÉRENCIER D'HONNEUR / KEYNOTE DAVID GRIMES, ECCC / WMO

Societal Benefits of Earth Observation: Perspectives from Environment and Climate Change Canada

## 10:30 - 11:00 | POLYVALENTE PAUSE / BREAK

## 10:30 - 15:45 | SALLE POLYVALENTE SALON DES EXPOSANTS / TRADE SHOW

## 11:00 - 11:30 | AMPHITHEATRE ASAR CONFÉRENCIER D'HONNEUR / ASAR KEYNOTE THUY LE TOAN, CENTRE D'ÉTUDES SPATIALES DE LA BIOSPHERE

The BIOMASS mission: quantifying biomass for global carbon assessment

## 11:00 - 12:20 | CHAUFFERIE ÉVOLUTION DU RÔLE DU GOUVERNEMENT ET DU SECTEUR PRIVÉ / CHANGING ROLES OF GOVERNMENT AND PRIVATE SECTOR

Shane Patterson, Government of Alberta | Stewart Bain, Northstar Space Data | Stephane Germain, GHGSat | David Haight, CSA

## 11:00 - 12:20 | SH-2620 ESTIMATION OF FUEL CHARACTERISTICS / FUEL MOISTURE MAPPING

11:00 – Integration of multispectral and ancillary Data for mapping Seriphium Plumbosum in a Mountainous Terrain using Ensemble Algorithms

Samuel Adewale Adelabu, University of The Free State

11:20 – Fuel load mapping in Savannah Ecosystems in support of integrated Fire management within protected Areas

Sandra Lohberger, RSS - Remote Sensing Solutions GmbH

11:40 – An Overview of Twenty Years of Research on Fuel Moisture Estimation Using Remote Sensing over Boreal Forests at the University of New Brunswick, Canada

Brigitte Leblon, Faculty of Forestry and Environmental Management, University of New Brunswick

12:00 – Developing approaches for monitoring boreal and arctic Soil Moisture from active and passive Microwave Data for Fire danger Assessment

Laura Bourgeau-Chavez, Michigan Tech Research Institute, Michigan Technological University

## 11:00 - 12:20 | SH-R810 APPLICATION DES DRONES EN AGRICULTURE / UAV IN AGRICULTURE

11:00 – Deep learning for a better use of UAV Imagery in Agriculture

Yacine Bouroubi, Effigis Geo-Solutions

11:20 – Suivi temporel et spatial de la biomasse du maïs à partir des images RGB acquises par drone

Kosal Khun, University of Montreal

11:40 – Étude du potentiel de l'imagerie infrarouge thermique acquise par drone pour la détection du stress hydrique dans la culture de pommes de terre

Hachem Agili, Institut national de la recherche scientifique (INRS)

12:00 – Exploring the Potential of Unmanned Aerial Vehicle Systems for Mapping Leafy Spurge

Anne Smith, Agriculture and Agri-Food Canada

## LÉGENDE / COLOR CODE

Une planète - une santé  
One Earth - One Health

Télédétection des incendies  
de forêt  
Wildfire Remote Sensing

Atelier sur la Commercialisation  
de l'Observation de la Terre  
Commercialization of Earth  
Observation Workshop

Colloque AGMQ:  
Les technologies sur l'Observation  
de la Terre appliquées au  
monde municipal et régional  
AGMQ Seminar

**11:00 - 12:20 | SH-2420**  
**FORÊTS / FOREST**

**11:00**— Sensitivity Analysis dedicated to the Impacts of Forest Disturbances on C-band Backscatter with simulated PolSAR data  
Ludovic Villard, CESBIO

**11:20**— Estimating Forest attribute changes across Canada through bi-temporal kNN mapping based on MODIS Imagery  
André Beaudoin, Natural Resources Canada,  
Canadian Forest Service, Laurentian Forestry Centre

**11:40**— A Post-Classification Time Series Change Detection Technique for Forest Disturbance Mapping Using Multi-Source Data  
Ilia Parshakov, Alberta Terrestrial Imaging Centre (ATIC),  
University of Lethbridge

**12:00**— High Frequency Multi-temporal Vegetation Canopy Model Extraction from Optical Satellite Data  
James Klassen, ShareGeo

**11:00 - 12:20 | SH-3620**  
**CHAMPS PÉTROLIERS ET SABLES BITUMINEUX / OIL FIELD AND OIL SAND MONITORING**

**11:00**— Automated InSAR Processing and Temporal Analysis for the Monitoring of Oil Field Subsidence caused by Steam Injection  
John Wessels, PCI Geomatics

**11:20**— Optical Water Mapping Algorithm Review for Ponds in the Oil Sands Region  
H.Peter White, Canada Centre for Remote Sensing,  
Natural Resources Canada, Ottawa

**11:40**— Monitoring Biomass Change within reclaimed Wetland and Forest Sites in the Oil Sands Region using high Resolution multi-temporal Optical Imagery, Field Data and Eddy Covariance Methods  
Laura Chasmer, University of Lethbridge

**12:20 - 13:30 | POLYVALENTE**  
**REPAS / LUNCH**

**11:00 - 12:20 | SH-3420**  
**UTILISATION DU LIDAR POUR L'INVENTAIRE ET L'ÉCOLOGIE FORESTIÈRE #1 / USE OF LIDAR IN FOREST INVENTORY AND ECOLOGY #1**

**11:00**— Coupling terrestrial LiDAR and AmapSim modeling to evaluate for juvenile Performance and predict productivity of 16 Hybrid Poplar Clones  
Sylvain Delagrange, UQO

**11:20**— The use of terrestrial LiDAR for enhance Forest Inventory  
Richard Fournier, Université de Sherbrooke

**11:40**— Preliminary testing of mobile terrestrial LiDAR for forest inventory and harvesting decision support  
Jili Li, FP Innovations

**12:00**— Improving Forest Inventory with Multi-Scale LiDAR Data and Tree Architecture modeling  
Jean-Francois Cote, Canadian Forest Service

**11:30 - 11:55 | AMPHITHEATRE**  
**ASAR CONFÉRENCIER D'HONNEUR / ASAR KEYNOTE**  
**RIDHA TOUZI, NRCan**

The Convair-580: Our source of Inspiration for the Influence of the Design, Calibration and Advanced Applications of Polarimetric Satellite SAR

**11:55 - 12:20 | AMPHITHEATRE**  
**ASAR CONFÉRENCIER D'HONNEUR / ASAR KEYNOTE**  
**ERIC LALIBERTÉ, CSA**

La constellation RADARSAT: Un regard différent sur le Canada et le monde / The RADARSAT Constellation: Changing how we look at Canada and the world

**12:20 - 13:30 | POLYVALENTE**  
**REPAS / LUNCH**

**12:30 - 13:00 | AMPHITHEATRE**  
**CONFÉRENCIER D'HONNEUR / KEYNOTE**  
**CHRIS DODD, AIRBUS**

Commercialization: Recent Experience, Lessons Learned and Plans for the Future

**13:30 - 14:50 | SH-R810**  
**APPLICATION DES DRONES EN ÉCOLOGIE / ECOLOGICAL APPLICATIONS OF UAVS**

**13:30**— Peatland Microtopography Mapping from UAV aerial Photography – Camera System and flight Parameter Considerations  
Oliver Lucanus, Below Water Pictures

**13:50**— Mapping Micro-Topography of Peatlands within Alberta: Applications for Unmanned Aerial Vehicle (UAV) Technology  
Julie Lovitt, University of Calgary

**14:10**— Mapping Peat Groundwater Table Dynamics using Unmanned Aerial Vehicle and Photogrammetric Techniques  
Julie Lovitt, University of Calgary

**14:30**— Estimating Vegetation Parameters on Seismic Lines with UAV-based Point Clouds  
Shijuan Chen, University of Calgary

**13:30 - 14:50 | SH-2620**  
**MAPPING BURNED AREAS AND BURN SEVERITY - PART I**

**13:30**— The National Burned Area Composite of Forest Fires in Canada  
Rob Shakun, Canadian Forest Service

**13:50**— Estimating Burn Severity Using the Combination of Landsat and Sentinel-2 Data over the Horse River Wildfire  
Jinkai Zhang, Alberta Agriculture and Forestry

**14:10**— Spatial Variability of Peat consumption following Wildfire at Fort McMurray using Field Measurements and temporal LiDAR Remote Sensing Data  
Laura Chasmer, University of Lethbridge

**14:30**— Natural Resources Canada's Response to the Fort McMurray Wildfire: Rapid Damage Assessment for Near-Real-Time Situational Awareness  
Brad Lehrbass, Natural Resources Canada

**13:30 - 14:50 | SH-2420**  
**ATMOSPHÈRE / ATMOSPHERE**

**13:30**— Global Monitoring of Greenhouse Gas Emissions  
Stephane Germain, GHGSat Inc.

**13:50**— Changes of Air Quality in China: a spatiotemporal Analysis of Aerosol Optical Depth based on Satellite Observation during 2001-2015  
Yao Feng, Queen's University

**14:10**— Estimation and Uncertainty Assessment of the Near-Surface Air Temperature at regional Scale using the modified Temperature/Vegetation Index derived from AVHRR Satellite Images  
Serge Olivier Kotchi, Public Health Agency of Canada

**13:30 - 14:50 | AMPHITHEATRE**  
**MISSIONS RSO #1 / SAR MISSIONS #1**

**13:30**— Tandem-L: A Highly Innovative Bistatic SAR Mission for Monitoring Earth's Dynamic Processes  
Patrick Klenk, German Aerospace Center (DLR)

**13:50**— Sentinel-1 Constellation SAR Interferometry Performance  
Dirk Geudtner, European Space Agency

**14:10**— WorldSAR and the High Resolution Wide Swath Mission  
Markus Jochum, Airbus Defence and Space

**14:30**— ICEYE Microsatellite SAR  
Pekka Laurila, ICEYE

**13:30 - 14:50 | AMPHITHEATRE**  
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**14:10**— Spatial Variability of Peat consumption following Wildfire at Fort McMurray using Field Measurements and temporal LiDAR Remote Sensing Data  
Laura Chasmer, University of Lethbridge

**14:30**— Natural Resources Canada's Response to the Fort McMurray Wildfire: Rapid Damage Assessment for Near-Real-Time Situational Awareness  
Brad Lehrbass, Natural Resources Canada

**13:30 - 14:50 | AMPHITHEATRE**  
**MISSIONS RSO #1 / SAR MISSIONS #1**

**13:30 - 14:50 | SH-R810**  
**APPLICATION DES DRONES EN ÉCOLOGIE / ECOLOGICAL APPLICATIONS OF UAVS**

**13:30**— Peatland Microtopography Mapping from UAV aerial Photography – Camera System and flight Parameter Considerations  
Oliver Lucanus, Below Water Pictures

**13:50**— Mapping Micro-Topography of Peatlands within Alberta: Applications for Unmanned Aerial Vehicle (UAV) Technology  
Julie Lovitt, University of Calgary

**14:10**— Mapping Peat Groundwater Table Dynamics using Unmanned Aerial Vehicle and Photogrammetric Techniques  
Julie Lovitt, University of Calgary

**14:30**— Estimating Vegetation Parameters on Seismic Lines with UAV-based Point Clouds  
Shijuan Chen, University of Calgary

**13:30 - 14:50 | SH-2420**  
**ATMOSPHÈRE / ATMOSPHERE**

**13:30 - 14:50 | SH-2620**  
**MAPPING BURNED AREAS AND BURN SEVERITY - PART I**

**13:30**— The National Burned Area Composite of Forest Fires in Canada  
Rob Shakun, Canadian Forest Service

**13:50**— Estimating Burn Severity Using the Combination of Landsat and Sentinel-2 Data over the Horse River Wildfire  
Jinkai Zhang, Alberta Agriculture and Forestry

**14:10**— Spatial Variability of Peat consumption following Wildfire at Fort McMurray using Field Measurements and temporal LiDAR Remote Sensing Data  
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**13:30 - 14:50 | AMPHITHEATRE**  
**MISSIONS RSO #1 / SAR MISSIONS #1**

**JOUR 1 – MARDI 20 JUIN 2017**  
**DAY1 – TUESDAY, JUNE 20, 2017**

**13:30 - 14:50 | SH-3620**  
**CRYOSPHERE / CRYOSPHERE**

**13:30**— Monitoring Snow Cover Extent over Eastern Canada Combining Fuzzy Logic and Remote Sensing Data  
 Sophie Roberge, INRS-ETE

**13:50**— Shipping Trends in Arctic Waters using six Years of SAT-AIS Data  
 Torkild Eriksen, Norwegian Defence Research Establishment (FFI)

**14:10**— Regional Sea Ice Monitoring Using A Model And Microwave Satellite Data  
 Igor Zakharov, C-CORE

**14:30**— RADARSAT-2 dual-polarimetric SAR Data to observe Terra Nova Bay Polynya  
 Ferdinando Nunziata, Università degli Studi di Napoli Parthenope, Dipartimento di Ingegneria

**13:30 - 14:50 | SH-3420**  
**UTILISATION DU LIDAR POUR L'INVENTAIRE ET L'ÉCOLOGIE FORESTIÈRE #2 / USE OF LIDAR IN FOREST INVENTORY AND ECOLOGY #2**

**13:30**— Prediction of FRI Attributes in different Forest Types in Ontario using a Core Set of ALS Metrics  
 Karin van Ewijk, Queen's University

**13:50**— Using LiDAR and WorldView-3 imagery to map individual tree species  
 Mathieu Varin, CERFO

**14:10**— Identifying individual Tree Species of Canadian Forests using mono- or multi-spectral airborne LIDAR  
 Benoît St-Onge, Université du Québec à Montréal

**14:30**— Using airborne LIDAR Data to calculate lateral and vertical growth in Canopy Gaps and how it varies in natural versus managed temperate deciduous Forests  
 Jean-François Senecal, UQAM

**JOUR 1 – MARDI 20 JUIN 2017**  
**DAY1 – TUESDAY, JUNE 20, 2017**

**13:30 - 14:50 | SH-3140**  
**DÉVELOPPEMENT URBAIN / URBAN DEVELOPMENT**

**13:30**— A Synergy of InSAR and PolSAR Techniques on Urban Development Detection over Greater Vancouver  
 Xiaodong Huang, University of Western Ontario

**13:50**— Rooftop characterization by applying deep learning to WorldView-3 Images: application to technical solar Photovoltaic Assessment  
 Yacine Bouroubi, Effigis Geo-Solutions

**14:10**— InSAR monitoring of Urban Land Subsidence in Canadian coastal Cities  
 Zhaohua Chen, University of Western Ontario

**14:30**— Impact de l'urbanisation sur la dynamique forestière par télédétection dans le périurbain de Lubumbashi entre 2007 et 2015  
 Nsiami Mabiala Catherine, Université de Lubumbashi

**14:50 - 15:30 | POLYVALENTE PAUSE / BREAK**

**15:30 - 16:50 | CHAUFFERIE CRÉATION ET DÉVELOPPEMENT DE NOUVELLES ENTREPRISES / BUILDING AND SUPPORTING NEW ENTERPRISES**

Pekka Laurila, Iceye | Chris Robson, Promethean Labs | Michelle Mendes, Canadian Space Commerce Association / Space Advisory Board

**15:30 - 16:50 | SH-2620**  
**MAPPING BURNED AREAS AND BURN SEVERITY - PART II**

**15:30**— Mapping Canadian Forest Fires using Proba-V time Series  
 Ruben Van De Kerchove, VITO

**15:50**— Mapping and Up-Scaling UAV-Based Indicators of Boreal Forest Burn Severity  
 Robert Fraser, Canada Centre for Mapping and Earth Observation

**16:10**— Estimating burn severity in northern boreal Forests from L-band dual-pol PALSAR Imagery: preliminary Results  
 André Beaudoin, Natural Resources Canada, Canadian Forest Service, Laurentian Forestry Centre

**16:30**— Burn Scar extraction using multi-temporal, multi-polarisation SAR Data  
 Jeanine Engelbrecht, Council for Scientific and Industrial Research

**15:30 - 16:50 | AMPHITHEATRE MISSIONS RSO #2 / SAR MISSIONS #2**

**15:30**— NovaSAR and NIASAR Payload Development and Performance  
 Geoff Burbidge, Airbus Defence and Space

**15:50**— Nearly 10 Years of RADARSAT-2 Flight Operations  
 Marielle Chabot, MDA GSI

**16:10**— Bistatic SAR Missions: An Overview of European Space Agency Activities  
 Malcolm Davidson, European Space Agency

**16:30**— Novel Global Monitoring and Imagery Exploitation Concepts of the UrtheCast Constellations  
 Keith Beckett, UrtheCast Corp.

**15:30 - 16:50 | SH-R810**  
**APPLICATIONS DES DRONES LE LONG DES CÔTES / UAVS ALONG THE COAST**

**15:30**— Use of UAV Aerial Images in the Study of Coastline Change, New Brunswick, Canada  
 André Robichaud, Université de Moncton-Campus de Shippagan

**15:50**— A New Spectral Index for Terrestrial Oil Spill Detection based on UAV Imagery  
 Masoud Mahdianpari, C-CORE and Memorial University of Newfoundland

**16:10**— Coastal Change Monitoring of Prince Edward Island's Dynamic Coastlines using small Unmanned Aerial Systems (sUAS)  
 Andrew Clark, University of Prince Edward Island

**16:30**— Surface Water reflectance and Water quality retrieval using a lightweight Spectrometer and UAV Platform  
 Chui Zeng, Carleton University

**JOUR 1 – MARDI 20 JUIN 2017**  
**DAY1 – TUESDAY, JUNE 20, 2017**

**15:30 - 16:50 | SH-2420**  
**MÉTHODES DE CLASSIFICATION / CLASSIFICATION METHODS**

**15:30**— Per-pixel accuracy Estimation of classified Remote Sensing Images  
 Giorgos Mountrakis, SUNY College of Environmental Science and Forestry

**15:50**— Using SAR polarimetry to improve the mapping and monitoring of Canada's natural environments  
 Thuy Nguyen-xuan, Effigis Geo-Solutions

**16:10**— Prairie Pothole Region, Temporal Wetland Classification at Shepard Slough Alberta, Canada  
 Joshua Montgomery, Department of Geography, University of Lethbridge

**16:30**— Using Machine learning and GEOBIA for the Automation of Land Cover Classification with a Time Series of LANDSAT AND SENTINEL 2 Data  
 Wolfgang Lueck, PCI Geomatics

**15:30 - 16:50 | SH-3620**  
**PLATEFORMES D'ACCÈS AUX MÉGA-DONNÉES ET SERVICES D'OBSERVATION DE LA TERRE / EO BIG DATA AND SERVICES ACCESS PLATFORMS**

**15:30**— NORTHSTAR: "Changing the way we see the world"  
 Derek Peddle, Alberta Terrestrial Imaging Centre (ATIC), University of Lethbridge

**15:50**— Data, Data everywhere, but how does Everyone drink?  
 Graham Stickler, SkyWatch

**16:10**— Stratégie nationale de données d'élévation pour le Canada / National Elevation Data Strategy for Canada  
 David Bélanger, Ressource naturelles Canada

**16:30**— Multi-Cloud Earth Observation Data Processing with Commercial and Institutional Clouds  
 Cedric Seynat, RHEA Group

**JOUR 1 – MARDI 20 JUIN 2017**  
**DAY 1 – TUESDAY, JUNE 20, 2017**

15:30 - 16:50 | SH-3420

**UTILISATION DU LIDAR POUR L'INVENTAIRE ET L'ÉCOLOGIE FORESTIÈRE #3 / USE OF LIDAR IN FOREST INVENTORY AND ECOLOGY #3**

15:30— Updating Forest Inventories using LiDAR and multi-temporal Landsat Data

Douglas Bolton, University of British Columbia

15:50— L'effet de la densité de points et angle de visée des données lidar aéroportées sur les métriques utilisées en foresterie

Martin Béland, Laval University

16:10— Uncertainties associated with Forest Resource Inventory Predictions over large Geographies in northern Canada

Craig Mahoney, University of Lethbridge

15:30 - 16:50 | SH-3140

**MILIEUX HUMIDES / WETLANDS**

15:30— Wetland Mapping in Southern New Brunswick (Canada) with Landsat-8 OLI and Alos-1 PALSAR L-HH and HV Images

Armand LaRocque, Faculty of Forestry and Environmental Management, University of New Brunswick

15:50— Automated Surface Water Thresholding Techniques Based on SAR Texture and db Backscatter Using Multi-Temporal Radarsat-2 Imagery

Reihaneh Peiman, University of Lethbridge

16:10— Toward the Use of Topographic, Radar, and Optical Inputs for a Probabilistic Wetland Classification Model in Northeastern Alberta, Canada

Jennifer Hird, University of Calgary

16:30— A Comparison of SAR compact Polarimetry with dual and quad Polarimetry for Wetland Classification using an Object-based Random Forest Algorithm

Bahram Salehi, C-CORE

**JOUR 2 – MERCRIDI 21 JUIN 2017**  
**DAY 2 – WEDNESDAY, JUNE 21, 2017**

**JOUR 2 – MERCRIDI 21 JUIN 2017**  
**DAY 2 – WEDNESDAY, JUNE 21, 2017**

10:30 - 11:00 | POLYVALENTE

**PAUSE / BREAK**

11:00 - 12:20 | SH-2620

**ACTIVE FIRE INFORMATION - CURRENT CAPABILITIES**

11:00— The Canadian Wildland Fire Information System: the online Hub of Wildfire-related Information in Canada

John Little, Natural Resources Canada, Government of Canada

11:20— Operational Implementation of the Advanced Fire Information System

Philip Frost, CSIR

11:40— Latest developments involving Landsat-Class, S-NPP/VIIRS and GOES-R/ABI active Fire detection Products

Wilfrid Schroeder, University of Maryland

12:00— Earth Observation Satellite Data to Support Wildfire Response: A Case Study of the Fort McMurray Horse River Fire

Jinkai Zhang, Alberta Agriculture and Forestry

9:00 - 10:30 | AMPHITHEATRE

**KEYNOTES PANEL  
SOCIETAL BENEFITS OF EARTH OBSERVATION**

Modérateur / Chair: Bob Ryerson

Panélistes / Panelists:

Rached Boussema, École nationale d'ingénieurs de Tunis

Carl D. Shapiro, USGS

Geneviève Marquis, RNCAN/NRCAN

Stéphane Roche, Université Laval)

9:10 - 10:30 | CHAUFFERIE

**ATELIER UNE PLANÈTE UNE SANTÉ: CONTEXTE ET SCIENCE / ONE EARTH ONE HEALTH WORKSHOP: CONTEXT AND SCIENCE**

9:10— Tele-Epidemiology : which Contribution for Earth Observation Satellite Data?

Cécile Vignolles, CNES

9:30— Satellite Earth Observation Data in Advancing Health-Related SDG 3 Targets: A Conceptual Framework

Ramesh Krishnamurthy, World Health Organization

9:50— Getting Ahead of the Curve: Using Earth Observations to Predict Health Risks

Juli Trtanj, National Oceanic and Atmospheric Administration

10:10— Earth Observations for Health and Air Quality

John Haynes, NASA

11:00 - 12:20 | AMPHITHEATRE

### MISSION DE LA CONSTELLATION RADARSAT #1 / RADARSAT CONSTELLATION MISSION #1

**11:00**— RADARSAT Constellation Mission

Steve Iris, Canadian Space Agency

**11:20**— RADARSAT Constellation Mission: Program Progress Update

Michel Gamache, Canadian Space Agency

**11:40**— The RADARSAT Constellation Mission Data Policy: Establishing a Framework for Data Management and Use

Jill Smyth, Canadian Space Agency

**12:00**— RADARSAT Constellation Mission: Launch Segment

Siamak Tafazoli, Canadian Space Agency

11:00 - 12:20 | SH-R810

### MÉTHODES POLARIMÉTRIQUES AVANCÉES / ADVANCED POLARIMETRIC METHODS

**11:00**— On the Unicity of polarimetric Target scattering Decomposition

Ridha Touzi, CCRS

**11:20**— Effects of Slanted Double Bounce and Tilted Single Bounce Scattering on Model-based Polarimetric Decomposition

Tom Ainsworth, Naval Research Laboratory

**11:40**— Wavelet and Polarimetric SAR Image Time Series Decompositions

Abdourrahmane Atto, Université Savoie Mont Blanc

**12:00**— L Band Circularly Polarized Synthetic Aperture Radar onboard Microsatellite : Research Model

Josaphat Tetuko Sri Sumantyo, Chiba University

11:00 - 12:20 | SH-2420

### TÉLÉDÉTECTION HYPERFRÉQUENCE DE LA CRYOSPHERE #1 / MICROWAVE REMOTE SENSING OF THE CRYOSPHERE #1

**11:00**— Estimating Snow Mass and Peak River flows using GRACE Satellite Observations

Shsuen Wang, Canada Centre for Remote Sensing

**11:20**— New Satellite Concepts for measuring Snow Mass

Juha Lemmetyinen, Finnish Meteorological Institute

**11:40**— Saline Snow covers on First-Year Sea Ice (FYI) – Friend or Foe for CryoSat-2 derived FYI Thickness Estimates?

Vishnu Nandan, University of Calgary

**12:00**— Backscatter and Land Surface Modeling Studies in Support of a Radar Mission Concept Study for Terrestrial Snow Water Equivalent

Chris Derksen, Environnement et Changement Climatique Canada

11:00 - 12:20 | SH-3620

### INTERFÉROMÉTRIE RSO APPLIQUÉE AU GÉORISQUES / INSAR APPLIED TO GEOHAZARDS

**11:00**— High frequency InSAR processing for continuously updated Ground Deformation Measurements

Giacomo Falorni, TRE Altamira Inc

**11:20**— Observation of Surface Deformation caused by Fluid injection and seismicity in the western Canada sedimentary Basin

Julia Kubanek, McGill University

**11:40**— InSAR Big Data: Monitoring all British Columbia for Geohazards

Adrian McCordle, 3v Geomatics

**12:00**— Ground Deformation produced by natural and anthropogenic Activates measured with the advanced RADARSAT-2 INSAR

Sergey Samsonov, Canada Centre for Mapping and Earth Observation

11:00 - 12:20 | SH-3420

### SÉCURITÉ MARITIME ET APPLICATIONS #1 / MARITIME SECURITY AND APPLICATIONS #1

**11:00**— Arctic maritime Surveillance with SENTINEL-1

Data using a Norwegian collaborative Ground Segment  
Tonje Nanette Arnesen Hannevik, Norwegian Defence Research Establishment

**11:20**— A Comparison of compact Polarimetry, dual polarization and single Polarization Modes within RADARSAT Constellation Mission for Detection and Discrimination of Ships and Icebergs

Desmond Power, C-CORE

**11:40**— Improved Vessel Detection and Characterization for RADARSAT-2

Evgueniy Lebed, MDA Systems Ltd

**12:00**— Benefits and Limitations of Active-Wide-Area-Surveillance for Maritime Domain Awareness

Chad Kabatoff, Department of National Defence

11:00 - 12:20 | SH-3140

### CARTOGRAPHIE DES ZONES INONDABLES #1 / FLOOD PLAIN MAPPING WITH EO #1

**11:00**— Expert Systems for Floodplain Characterization

Brian Brisco, Canada Centre for Remote Sensing

**11:20**— Snow Pack characterization with UAV's for Flood Plain mapping

Richard Fernandes, Canada Centre for Remote Sensing

**11:40**— Land Cover Attribute Mapping of the Greater Toronto Area in Support of Flood Risk Assessments

Ying Zhang, Canada Centre for Mapping and Earth Observation

**12:00**— SAR Techniques for Dynamic Surface Water and Flooded Vegetation Mapping for Flood Plain Characterization

Brian Brisco, Canada Centre for Remote Sensing

11:00 - 12:20 | SH-3220

### INNOVATION DANS L'UTILISATION DES DRONES EN SCIENCES NATURELLES / INNOVATIVE UAVS USES IN NATURAL SCIENCES

**11:00**— CHIEM: A new compact Camera for hyperspectral Imaging

Joris Blommaert, VITO

**11:20**— UAVs for environmental Research: innovating new Methods vs transposition of established Remote Sensing Tools

Jérôme Théau, Université de Sherbrooke

**11:40**— Evaluating RPAS Flight Parameters on Individual Plant Mapping Accuracy

Derek Robinson, University of Waterloo

**12:00**— Assessing Pine Processionary Moth defoliation using unmanned aerial Systems

Udaya Vepakomma, FP Innovations

### 12:20 - 13:30 | POLYVALENTE REPAS / LUNCH

12:30 - 13:20 | SH-3620

### TABLE RONDE: DÉFIS POUR LA PROCHAINE GÉNÉRATION DE SATELLITES RSO / PANEL DISCUSSION: CHALLENGES FOR NEXT GENERATION SAR

Alan Thompson, MDA | Keith Beckett, UrTheCasr | Markus Jochum, Airbus | Dirk Geutdner, ESA | Guy Séguin, INSARSAT

12:30 - 13:00 | AGORA

### CONFÉRENCIER D'HONNEUR / KEYNOTE MELANIE GOODCHILD, WATERLOO INSTITUTE FOR SOCIAL INNOVATION AND RESILIENCE

Anishinaabe Gikendaasowin: Indigenous knowledge systems, place, language and culture

13:00 - 13:40 | SH-2620

### CONFÉRENCIER D'HONNEUR / KEYNOTE MARTIN WOOSTER, KING'S COLLEGE LONDON

Deriving Fire Emitted Carbon & Smoke Emissions from Satellite Fire Radiative Power Observations

**13:20 - 16:00 | CHAUFFERIE**  
**ATELIER UNE PLANÈTE UNE SANTÉ:  
RÉSOLUTION DE PROBLÈMES AU MOYEN  
DE SCÉNARIOS / ONE EARTH ONE HEALTH  
WORKSHOP: PROBLEM SOLVING**

Richard Fournier, Université de Sherbrooke

**13:30 - 14:50 | SH-3120**  
**Q&R ÉTUDIANT / STUDENT Q&A**

**13:30 - 14:50 | AMPHITHEATRE**  
**MISSION DE LA CONSTELLATION RADARSAT #2 /  
RADARSAT CONSTELLATION MISSION #2**

**13:30**— RCM SAR Payload – An Overview of Performance  
Aurélien Fourmault, MDA Space Missions

**13:50**— The Stepped-Receive Capability in the RADARSAT Constellation Mission  
Alan Thompson, MDA

**14:10**— RCM Data Utilization & Application Plan (DUAP)  
Daniel Delisle, Canadian Space Agency

**14:30**— Comparison between Image Products from the RADARSAT Constellation Mission and RADARSAT-2  
Alan Thompson, MDA

**13:30 - 14:50 | SH-R810**  
**POLINSAR**

**13:30**— Zap Functions: Phase Information in Quad and Compact Polarimetry  
Shane Cloude, AEL Consultants

**13:50**— Frequency Variation of the polarimetric Scattering Mechanisms of Forests and its Consequences on Interferometric Height  
Laetitia Thirion-Lefevre, SONDRA/CentraleSupélec

**14:10**— 3D Characterization of Ecosystems with repeat-Pass polarimetric and interferometric Synthetic Aperture Radar  
Marc Simard, NASA Jet Propulsion Laboratory

**13:30 - 14:50 | SH-2420**  
**TÉLÉDÉTECTION HYPERFRÉQUENCE DE LA CRYOSPHERE #2 / MICROWAVE REMOTE SENSING OF THE CRYOSPHERE #2**

**13:30**— A First Approach for an Approximate Calculation of Surface Heights for Ice Caps from TanDEM-X InSAR Measurements for Devon Island  
Birgit Wessel, German Aerospace Center (DLR)

**13:50**— SAR Remote Sensing of Ice Sheets, Glaciers, and Ice Caps  
Bernd Scheuchl, University of California, Irvine

**14:10**— Hybrid Wide-area Backscatter Maps combining Sentinel-1 and Radarsat-2 Observations  
David Small, University of Zurich

**14:30**— Interpreting DinSAR seasonal Surface Displacement in a continuous Permafrost high arctic Environment  
Ashley Rudy, Queen's University

**13:30 - 14:50 | SH-3620**  
**COOPÉRATION JAXA-ASC DANS LA SURVEILLANCE DES DÉSASTRES À L'AIDE DES SATELLITES RSO#1 / JAXA-CSA COOPERATION IN SAR SATELLITE DISASTER MONITORING#1**

**13:30**— Advanced Land Observing Satellite-2 L-band SAR Applications  
Shinichi Sobue, JAXA

**13:50**— Detection of small Surface Displacement by InSAR using RADARSAT-2, ALOS and ALOS-2 Data  
Yu Morishita, Geospatial Information Authority of Japan

**14:10**— InSAR Deformation monitoring from RADARSAT 2 and ALOS Images  
Vern Singhroy, Canada Centre for Remote Sensing

**14:30**— Comparison of Landslides' Recognition Capacity of L- and C-band RADAR Polarimetry  
Ryoichi Furuta, Remote Sensing Technology Center of Japan

**13:30 - 14:50 | SH-3420**  
**SÉCURITÉ MARITIME ET APPLICATIONS #2 / MARITIME SECURITY AND APPLICATIONS #2**

**13:30**— Multi-polarization SAR Ship Detection: a fair Comparison using the TanDEM-X Pursuit monostatic Mode  
Ferdinando Nunziata, Università degli Studi di Napoli Parthenope, Dipartimento di Ingegneria

**13:50**— Icebergs in Sea Ice: Detection and Iceberg-Ship Discrimination With RADARSAT-2 Full Polarimetric Data  
Igor Zakharov, C-CORE

**14:10**— Maritime Pollution Monitoring Using Simulated RADARSAT Constellation Mission Compact Polarimetric SAR Data  
Mohammed Daboor, Environment and Climate Change Canada

**14:30**— Waterline Detection and Topography in the Wadden Sea using Synthetic Aperture Radar Data  
Stephan Wiehle, German Aerospace Center (DLR)

**13:30 - 14:50 | SH-3140**  
**CARTOGRAPHIE DES ZONES INONDABLES #2 / FLOOD PLAIN MAPPING WITH EO #2**

**13:30**— Validating EO derived Products during Natural Disasters with Crowdsourced Geographic Information (CGI)  
Vincent Decker, Natural Resources Canada

**13:50**— Optical and Radar Multi-Sensor Integration for Historical and Near-Real Time Surface Flood Water Mapping  
Ian Olthof, Canada Centre for Remote Sensing

**14:10**— Improvements and validation of Earth observation based flood extent and depth Products for Emergency decision-support  
Simon Tolszczuk-Leclerc, Natural Resources Canada

**14:30**— A mountain water resources monitoring framework using a temporal fusion of optical, lidar and radar image data sources at century to season scales  
Chris Hopkinson, University of Lethbridge

**13:30 - 14:50 | SH-3140**  
**RSO POUR LA SÉCURITÉ / SAR FOR SAFETY AND SECURITY**

**13:30**— Shoreline Extraction from RADARSAT-2 Imagery in Support of Canadian Armed Forces Operations  
Greg Barrie, Defense Research and Development Canada (DRDC)

**13:50**— ISTEP - User-Centric Flood Information from Earth Observation Data  
Alan Higginson, ADGA Group Consultants Inc.

**14:10**— Enhanced capability for extracting Geospatial Intelligence from RADARSAT-2 Imagery  
Ron Caves, MDA Systems Ltd

**14:30**— Overview of Defence Research & Development Canada's Space-Based Intelligence Surveillance and Reconnaissance Program  
Sonya Banal, Defence Research and Development Canada (DRDC)

**13:40 - 14:50 | SH-2620**  
**FIRE WORKSHOP PANEL**  
Bridging Research and Reality

**14:50 - 15:30 | POLYVALENTE PAUSE / BREAK**

**15:30 - 16:50 | SH-2620**  
**ACTIVE FIRE INFORMATION - NEW DEVELOPMENTS**

**15:30**— Earth Observation Imagery in Modelling Fire Regime: Applications and Challenges  
Steve Cumming, Université Laval

**15:50**— Designing data-driven Modeling Strategies for real-Time Wildfire spread forecasting  
Mélanie Rochoux, CECI, Cerfacs - CNRS

**16:10**— Prescribed Burn, Helicopterborne Infrared Imagery, and 3D Plume Model for Synthetic FRP Product Simulation  
Ronan Paugam, University of Washington

**16:30**— A Canadian Wildland Fire Monitoring System  
Helena van Mierlo, Canadian Space Agency

**15:30 - 16:50 | AMPHITHEATRE**  
**MISSION DE LA CONSTELLATION RADARSAT #3 / RADARSAT CONSTELLATION MISSION #3**

**15:30**— Terrestrial Snow Mass SAR Mission for Canada  
Geoff Burbidge, Airbus Defence and Space

**15:50**— Archives and Applications Of Consistent High Resolution Land Coverage Using RADARSAT-2  
Marco van der Kooij, MDA

**16:10**— Development of a Compressed TCPED Cycle for RCM follow-on missions  
Andreas Stock, Airbus Defence and Space

**15:30 - 16:50 | SH-R810**  
**TRAITEMENT D'IMAGES POLARIMÉTRIQUES / POLARIMETRIC SAR PROCESSING**

**15:30**— Mean-Shift Polaris Image Denoising with Position Tensor  
Jean-Marie Beaulieu, Laval University

**15:50**— Speckle Filtering in Polarimetric SAR Images based on a Deep Learning Approach  
Samuel Foucher, Computer Research Institute of Montreal

**16:10**— Polarimetric Radar for Remote geological Mapping of Salt Diapirs on Axel Heiberg Island, Nunavut  
Elise Harrington, University of Western Ontario

**16:30**— Soil Moisture retrieval over agricultural Fields from Polarimetric decomposition of multi-angular SAR Data  
Hongquan Wang

PROGRAMME DÉTAILLÉ / DETAILED PROGRAM

**15:30 - 16:50 | SH-2420**  
**TÉLÉDÉTECTION HYPERFRÉQUENCE DE LA CRYOSPHERE #3 / MICROWAVE REMOTE SENSING OF THE CRYOSPHERE #3**

**15:30**— Monitoring Sea Ice in Nunavik's Deception Bay with RADARSAT-2 (quad-pol) and TerraSAR-X (dual-pol) data  
Sophie Dufour-Beauséjour, Institut national de la recherche scientifique

**15:50**— Advancing a Great Lakes Satellite SAR Ice Type Classification Algorithm and Its Relation to the Operational ICECON Risk Assessment Tool  
George Leshkevich, NOAA/Great Lakes Environmental Research Laboratory

**16:10**— Ice-Water Classification on Large Northern Lakes Using RADARSAT-2 SAR Imagery  
Marie Hoekstra, University of Waterloo

**16:30**— Coherence of InSAR for Spatiotemporal Variations of River Ice Cover Monitoring  
Zhaoqin Li, University of Saskatchewan

**15:30 - 16:50 | SH-3620**  
**COOPÉRATION JAXA-ASC DANS LA SURVEILLANCE DES DÉSASTRES À L'AIDE DES SATELLITES RSO#2 / JAXA-CSA COOPERATION IN SAR SATELLITE DISASTER MONITORING#2**

**15:30**— Fire Extent Monitoring using Polarimetric SAR Data for the 2016 Fort McMurray Wildfire  
Masato Ohki, JAXA

**15:50**— Potential of L-band dual-polarized PALSAR Imagery for mapping burned Areas in northern boreal Forests  
André, Beaudoin, Natural Resources Canada, Canadian Forest Service, Laurentian Forestry Centre

**16:10**— Monitoring of sea ice distribution using L- and C-band SAR data at Bering Strait  
Tsutomu Yamanokuchi, Remote Sensing Technology Center of Japan

**16:30**— Evaluation on Visibility of Different Acquired Conditions of SAR Data for Water Monitoring  
Keita Miyazaki, JAXA

**15:30 - 16:50 | SH-3420**  
**SÉCURITÉ MARITIME ET APPLICATIONS #3 / MARITIME SECURITY AND APPLICATIONS #3**

**15:30**— A Hurricane Wind Speed Retrieval Model for C-band Radarsat-2 Cross-polarization ScanSAR Images: C-3PO  
Will Perrie, Bedford Institute of Oceanography

**15:50**— Detection of potential natural Oil Seeps in the marine Environment of Hudson Bay/Straight and Foxe Channel from RADARSAT 2 Imagery  
Simon Tolszczuk-Leclerc, Natural Resources Canada

**16:10**— Ocean Surface Features derived from Sentinel 1-A/B SAR Images  
Wesley Van Wychen, Defence Research and Development Canada (DRDC)

**16:30**— Quality assessment and Rain correction of Hurricane Wind retrieved from SAR  
Hui Shen, Bedford Institute of Oceanography

**15:30 - 16:50 | SH-3140**  
**CARTOGRAPHIE DES ZONES INONDABLES #3 / FLOOD PLAIN MAPPING WITH EO #3**

**15:30**— An Overview of SWOT related hydrologic research in Canada, with a focus on the St. Lawrence and Peace Athabasca Delta projects  
Robert Leconte, Université de Sherbrooke

**15:50**— Operational Near-real Time Flood Extent Mapping in Urban Areas Based on C-Band SAR Data and Flood Return Period Data  
Marion Tanguy, Institut national de la recherche scientifique (INRS)

**16:10**— Development of a Digital Water Surface Model and in situ bathymetric correction of multi-spectral LiDAR; a case-study at the Bow and Elbow rivers  
Maxim Okhrimenko, University of Lethbridge

**16:30**— River Erosion Monitoring, Analysis, and Prediction using Microwave Remote Sensing Data  
Md Saifuzzaman, McGill University

**15:30 - 16:50 | SH-3220**  
**DRONES POUR LE DIAGNOSTIC, LE SUIVI, ET LA GESTION DES FORêTS / UAV FOR FOREST ASSESSMENT, MONITORING AND MANAGEMENT**

**15:30**— Development of a High-Accuracy UAV-Photogrammetry Solution for Automated Environmental Modeling  
Mozhdeh Shahbazi, University of Calgary

**15:50**— Small is the new BIG : Monitoring and future of the Forest Stands with UAS  
Udaya Vepakomma, FP Innovations

**16:10**— The Role of UAVs in the Early Detection of Mountain Pine Beetle Mortality  
Greg McDermid, University of Calgary

**16:30**— UAVs applied to wildlife Studies  
Jérôme Théau, Université de Sherbrooke

**16:00 - 16:40 | CHAUFFERIE**  
**ATELIER UNE PLANÈTE UNE SANTÉ: DISCUSSIONS / ONE EARTH ONE HEALTH WORKSHOP: DISCUSSION**

Guy Aubé, CSA | Dirk Werle, Ærde Environmental Research

**16:40 - 16:50 | CHAUFFERIE**  
**ATELIER UNE PLANÈTE UNE SANTÉ: CONCLUSION / ONE EARTH ONE HEALTH WORKSHOP: CONCLUSION**

Matthew W. Gilmour, Public Health Agency of Canada

**17:00 - 17:30 | AMPHITHEATRE**  
**CONFÉRENCIER D'HONNEUR / KEYNOTE NICHOLAS OGDEN, PUBLIC HEALTH RISK SCIENCES DIVISION, NATIONAL MICROBIOLOGY LABORATORY, PHAC**

Contribution of Earth Observation to Public Health Practices

**17:30 - 17:50 | AMPHITHEATRE**  
**ONE EARTH ONE HEALTH WORKSHOP: REPORT**

Matthew W. Gilmour, Public Health Agency of Canada

**17:50 - 18:00 | AMPHITHEATRE**  
**CONCLUSION - DAY 2**

**18:30 - 23:00 | HALL PANORAMIQUE - VIEUX PORT DE MONTRÉAL**  
**SOUPER BANQUET / BANQUET DINNER**

**7:30 - 8:30 | HOTEL 10 RESTAURANT  
STUDENT PROGRAM - NETWORKING BREAKFAST**

**7:45 - 17:00 | HALL  
INSCRIPTION / REGISTRATION**

**7:45 - 15:45 | SALLE POLYVALENTE  
SALON DES EXPOSANTS / TRADE SHOW**

**8:00 - 17:00 | AGORA  
SALON DES EXPOSANTS AGMQ**

**8:15 - 8:30 | AMPHITHEATRE  
MOT DE BIENVENUE DU SOMMET OT /  
EO SUMMIT 2017 WELCOME ADDRESS**

**8:30 - 9:00 | AMPHITHEATRE  
CONFÉRENCIER D'HONNEUR / KEYNOTE  
STEVEN RAMAGE, GEO SECRETARIAT**

Earth observations for a sustainable future

**9:10 - 10:30 | AGORA  
CONFÉRENCE D'OUVERTURE AGMQ  
STÉPHANE ROCHE, UNIVERSITÉ LAVAL**

Smart Cities

**9:10 - 9:50 | SH-2620  
ACTIVE FIRE INFORMATION -  
USING AIRBORNE SYSTEMS**

Very Large-Scale, High Spatial Resolution Airborne Thermal Mapping of Wildfires in Canada using the TABI-1800

Jason Howse, ITRES Research

Hummingbird Drones' Application of UAVs on the Fireline

Robert Atwood, Hummingbird Drones Inc.

**9:10 - 10:30 | AMPHITHEATRE  
TÉLÉDÉTECTION RSO DE PROCHAINE  
GÉNÉRATION POUR LES GLACES MARINES & DE  
LEURS PROPRIÉTÉS#1 / NEXT-GEN SAR REMOTE  
SENSING OF SEA ICE & ICE FEATURES#1**

Sea Ice Characterization Using Simulated Compact Polarimetric (RCM) and Compact Polarimetric (RISAT-1) SAR Data

Suman Singha, German Aerospace Center (DLR)

Mapping Hazardous Sea Ice Features With Advanced Capabilities of SAR Satellites

Igor Zakharov, C-CORE

Melt Season Sea Ice discrimination in the Northwest Passage with C- and L-band SAR

Randy Scharien, University of Victoria

Sea Ice Classification Using C-band Compact Polarimetric SAR during the Advanced Melt Season in Victoria Strait, Canadian Arctic Archipelago

Sasha Nasonova, University of Victoria

**9:10 - 10:30 | SH-R810  
COLLABORATION ASC-DLR: SYNERGIE DES  
DONNÉES EN BANDE C & X #1 / CSA-DLR COL-  
LABORATION: C & X BAND DATA SYNERGIES #1**

Forest Height and Aboveground Biomass retrieval in Tropical Peat Swamp forests using Multi-Pass X- and C-band PolInSAR Data

Sandra Lohberger, RSS - Remote Sensing Solutions GmbH

CSA-DLR Collaboration: Forest Height and Aboveground Biomass Retrieval in Tropical Forests using Multi-pass C- and X- band POLInSAR Data

Yi Zang, AUG Signals Ltd.

Snow Mapping for Fire Risk Management through Integration of C- and X-Band SAR and a Spatially-explicit Hydrological Model

Jean-Simon Michaud, Hatfield Consultants

Snow Mapping for Fire Risk Management through Integration of a Spatially-Explicit Hydrological Model and X- and C-Band SAR

Fabian Niggemann, VISTA

**9:10 - 10:30 | SH-2420  
CALIBRATION ET VALIDATION #1 /  
CALIBRATION AND VALIDATION #1**

SAR Antenna Pointing Determination: Results from the Sentinel-1B Commissioning Phase and novel approaches

Patrick Klenk, German Aerospace Center (DLR)

DLR's Innovative Point Targets for SAR System Calibration and their Application to Sentinel-1

Klaus Weidenhaupt, German Aerospace Center (DLR)

Sentinel-1B In-Orbit SAR Calibration and Performance Verification

Dirk Geudtner, European Space Agency

Polarimetric PALSAR-2 Calibration

Ridha Touzi, CCRS

**9:10 - 10:30 | SH-3620  
BIODIVERSITÉ / BIODIVERSITY**

Monitoring Habitat Degradation caused by overabundant Geese in Canadian Arctic Migratory Bird Sanctuaries using Trend-Analysis and Landsat Stacks

Jon Pasher, Environment and Climate Change Canada

Modeling the Impacts of phenological and inter-annual Changes in Landscape Metrics on Local Biodiversity of Agricultural Lands of Eastern Ontario using multi-spatial and multi-temporal Remote Sensing Data

Niloofar Alavi, Carleton University

Development of a 30 m spatial Resolution 2010 Land Cover of Canada

Darren Pouliot, Canada Centre for Remote Sensing

**9:10 - 10:30 | SH-3420  
MILIEUX HUMIDES ET EAUX INTÉRIEURES /  
INLAND WATERS AND WETLANDS**

30 Year Changes in global Surface Water extent - implications for Conservation and Biodiversity

Margaret Kalacska, McGill University

A New Algorithm for the Operational Retrieval of Water Quality Parameters in the Laurentine Great Lakes from Satellite Data

George Leshkevich, NOAA/Great Lakes Environmental Research Laboratory

Precise Delineation of Small Water Bodies from Sentinel-1 Data

Philippe Maillard, Universidade Federal de Minas Gerais

SAR Intensity and Coherence Images for 2D River Dynamics: A Study of the Amazon River

Francis Canisius, Canada Centre for Remote Sensing, Natural Resources Canada, Ottawa

**9:10 - 10:30 | SH-3140  
L'OBSERVATION DE LA TERRE EN FRANÇAIS /  
EARTH OBSERVATION IN FRENCH**

À la recherche depuis l'Espace de la cité maya perdue: KAAK CHI

William Gadoury, Académie Antoine Manseau

Analyse des séries temporelles d'images radar à très haute résolution pour l'aide à la gestion des inondations : Étude de cas des inondations de la rivière Richelieu et du lac Champlain

Moslem Ouled Sghaier, École de technologie supérieure

Effets gonioradiométriques sur des images optiques dans le spectre solaire et leur correction

François Cavayas, Université de Montréal

L'imagerie satellitaire à très haute résolution au service des ministères et organismes du Gouvernement du Québec

Stephen Cote, Ministère de l'Énergie et des Ressources naturelles

**9:10 - 10:30 | SH-3220**  
**APPLICATIONS POLARIMÉTRIQUES AVANCÉES / ADVANCED POLARIMETRIC APPLICATIONS**

**9:10**— Advances in PolSAR Remote Sensing of seasonal Snow at C-band. Application in alpine Environment by means of Radarsat-2 Data

Jean-Pierre Dedieu, CNRS

**9:30**— Lava Surface Roughness from Ultra-High Resolution LiDAR Topography Compared to RADARSAT-2 C-Band and AIRSAR L-Band Circular Polarization Ratio

Michael Zanetti, The University of Western Ontario

**9:50**— Polarimetric Decomposition of dual-Frequency SAR Data for Soil Moisture Retrieval over Agricultural Fields

Hongquan Wang, University of Sherbrooke

**10:10**— Detection and Validation of Forest Disturbances using RADARSAT-2

Gordon Staples, MDA GSI

**9:50 - 11:00 | SH-2620**  
**FIRE WORKSHOP PANEL**

Air, Ground And Space Helping Each Other Out

**10:30 - 11:00 | POLYVALENTE PAUSE / BREAK**

**11:00 - 12:00 | AGORA**  
**AGMQ - LES TECHNOLOGIES D'OBSERVATION DE LA TERRE APPLIQUÉES AU MONDE MUNICIPAL ET RÉGIONAL**

**11:00**— Le Lidar et ses dérivés pour une utilisation métropolitaine

Bruno Labonte, Communauté métropolitaine de Québec

**11:30**— Roof Damage Assessment from Automated 3D Building Models

Kenichi Sugiura, Gifu-Keizai University

**11:00 - 12:00 | CHAUFFERIE**  
**AGMQ - VITRINE TECHNOLOGIQUE**

**11:00**— Plateforme mobile de SIGim Web pour consultation et interrogation des données sur le terrain Maxime Grimard, Geomap GIS Amérique

**11:30**— Améliorer les processus d'aide à la décision en utilisant les données Lidar et l'imagerie par drone Martin Couture, Esri Canada

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11:00 - 12:20 | SH-3220

### APPLICATIONS DE LA CONSTELLATION RADARSAT / RADARSAT CONSTELLATION MISSION APPLICATIONS

**11:00**— Evaluation of Simulated Dual and Compact Polarimetric RADARSAT Constellation Mission Data for Shoreline Sensitivity Mapping  
Sarah Banks, Environment and Climate Change Canada

**11:20**— The Development and Delivery of On-Demand RADARSAT Constellation Mission Ground Deformation Products based on advanced INSAR Technology  
Sergey Samsonov, Canada Centre for Mapping and Earth Observation

**11:40**— A Status Update on Operational Readiness Preparations at the Canadian Ice Service (CIS) for the RADARSAT Constellation Mission (RCM)  
Dean Flett, Canadian Ice Service, Environment and Climate Change Canada

**12:00**— Estimation of First-Year Sea Ice Melt Pond Fraction from Compact Polarization SAR  
Will Perrie, Bedford Institute of Oceanography

### 12:05 - 12:20 | AGORA AGMQ - REMISE DE BOURSE AGMQ-UQAM

### 12:20 - 13:30 | POLYVALENTE REPAS / LUNCH

### 12:30 - 13:00 | AMPHITHEATRE CONFÉRENCIER D'HONNEUR / KEYNOTE JONATHON ROSS, GEOSCIENCE AUSTRALIA

Digital Earth Australia and the Open Data Cube - Embedding EO into government business

### 13:30 - 15:00 | AGORA AGMQ - LES TECHNOLOGIES D'OBSERVATION DE LA TERRE APPLIQUÉES AU MONDE MUNICIPAL ET RÉGIONAL

**13:30**— Acquisition et traitement des imageries hyperspectrales de haute résolution pour la cartographie des îlots de chaleur et des microparticules de Montréal  
Richard Mongeau, Ville de Montréal

**14:00**— Déterminants urbains de la santé issus de données d'observation de la Terre  
Yves Baudouin, Université du Québec à Montréal

13:30 - 15:00 | CHAUFFERIE

### AGMQ - VITRINE TECHNOLOGIQUE

**13:30**— L'importance de la haute précision des données  
Jean-Philippe Dargis, Eos Systèmes de Positionnement et Esri Canada

**14:00**— Le drone: un outil révolutionnaire d'analyse spatiale  
Maude Pelletier, Génidrone inc.

**14:30**— L'utilisation des drones dans le monde municipal  
Jonathan Roy, H4G géomatique inc.

### 13:30 - 14:50 | SH-2620 SMOKE AND AIR QUALITY

**13:30**— Predicting the minimum Height of Forest Fire Smoke within the Atmosphere using Machine learning and Data from the CALIPSO Satellite  
Angela Yao, University of British Columbia

**13:50**— Wildland Fire Smoke monitoring and forecasting by Ontario Ministry of Environment and Climate Change: recent Case Studies  
Frank Dempsey, Ontario Ministry of Environment and Climate Change

**14:10**— Environment and Climate Change Canada's FireWork System: taking Advantage of Remote Sensing of Wildland Fires to improve Air Quality and Smoke Forecast Services  
Didier Davignon, Canadian Meteorological Centre Operations, Environment and Climate Change Canada

12:30 - 13:00 | AMPHITHEATRE

### CONFÉRENCIER D'HONNEUR / KEYNOTE JONATHON ROSS, GEOSCIENCE AUSTRALIA

Digital Earth Australia and the Open Data Cube - Embedding EO into government business

### 13:30 - 14:50 | AMPHITHEATRE

### TÉLÉDÉTECTION RSO DE PROCHAINE GÉNÉRATION POUR LES GLACES MARINES ET DE LEURS PROPRIÉTÉS #2 / NEXT-GEN SAR REMOTE SENSING OF SEA ICE & ICE FEATURES#2

**13:30**— Detection of Melt Ponds in Sea Ice in the Labrador Sea by Quad-Polarized Synthetic Aperture Radar  
Will Perrie, Bedford Institute of Oceanography

**13:50**— An Integrated Approach Utilizing RADARSAT-2 SAR and GLCM Texture to Quantify the Relationship between Aerial Melt-Pond Distribution and Microwave Backscatter  
Saroat Ramjan, University of Calgary

**14:10**— Polarimetric C- and X-band SAR Observations of Multi-Year Sea Ice: towards the retrieval of Sea Ice Surface roughness and thickness  
Alec Casey, York University

**14:30**— Incidence Angle dependency of L-band Microwave backscatter of Arctic Sea Ice  
Mallik Mahmud, University of Calgary

13:30 - 14:50 | SH-R810

### COLLABORATION ASC-DLR: SYNERGIE DES DONNÉES EN BANDE C & X #3 / CSA-DLR COLLABORATION: C & X BAND DATA SYNERGIES #3

**13:30**— Synergistic use of X- and C-Band SAR Data for tactical Ship Route planning in the Arctic Waters  
Oliver Lang, Airbus

**13:50**— Detection and Tracking of Icebergs and Ships in Sea Ice with RADARSAT-2 and TerraSAR X/TanDEM-X data  
Igor Zakharov, C-CORE

**14:10**— High Resolution Sea Ice Motion Estimation from C- and X-Band SAR Data Acquired During Antarctic Circumnavigation Expedition  
Anja Frost, German Aerospace Center (DLR)

**14:30**— Multi-application InSAR Integration (MI2): Combined Use of C-Band and X-Band Imagery for Displacement Monitoring  
Kathy McKay, 3v Geomatics Inc.

13:30 - 15:10 | SH-2420

### AIRE DE CONSERVATION DE LA MER BLEUE POUR LA CALIBRATION/VALIDATION DE SATELLITES OPTIQUES / MER BLEUE PEATLANDS FOR OPTICAL SATELLITE CAL/VAL

**13:30**— Validation of Sentinel-2 Data Products of a Peatland Test Site using Airborne Hyperspectral Imagery and Field Spectrometry  
Raymond Soffer, National Research Council Canada

**13:50**— Sensitivity Analysis of Atmospheric Correction Methods for Hyperspectral Imagery Using ATCOR4 and FLAASH: A Peatland Example  
Gabriela Ifimov, National Research Council Canada

**14:10**— Towards multi-temporal Estimations of Peatland Net Ecosystem exchange from Airborne and Satellite Imagery  
Margaret Kalacska, McGill University

**14:30**— High Precision GPS Survey at the Mer Bleue Bog: Preliminary Results and Lessons Learnt  
H.Peter White, Canada Centre for Remote Sensing, Natural Resources Canada, Ottawa

**14:50**— Optical Satellite Simulations for Sentinel-2A for Evaluation of Peatland Applications  
H.Peter White, Canada Centre for Remote Sensing, Natural Resources Canada, Ottawa

13:30 - 14:50 | SH-3620

### SURVEILLANCE RSO DES MILIEUX HUMIDES #2 / SAR WATER AND WETLANDS MONITORING #2

**13:30**— A Multi-Sensor, Multi-Frequency Remote Sensing Approach for Wetland Identification and Change Detection  
Sarah Banks, Environment and Climate Change Canada

**13:50**— Wetland Identification and Change Detection using a multi-sensor, multi-frequency Remote Sensing Approach  
Brian Huberty, U.S. Fish & Wildlife Service

**14:10**— Mapping Wetland Water dynamics using Synthetic Aperture Radar and multi-temporal Shannon Entropy  
Valentin Poncos, Kepler Space Inc.

**14:30**— SAR Techniques for Flooded Vegetation Mapping in Flood Response Products  
Brian Brisco, Canada Centre for Remote Sensing, Natural Resources Canada

**JOUR 3 – JEUDI 22 JUIN 2017**  
**DAY 3 – THURSDAY, JUNE 22, 2017**

**13:30 - 14:50 | SH-3420  
EAUX COTIÈRES / COASTAL WATERS**

13:30—Arctic coastal Ecosystem mapping using high Resolution Optical Satellite Imagery

Zhaohua Chen, Environment and Climate Change Canada

13:50—Use of Enhanced Multi-temporal and Conventional Imagery for Inland Water Body and Coastal Zone Characterization

Cynthia Dacre, MDA Information Systems, LLC

14:10—IcePAC - A Regional Scale Sea Ice Concentration Probability model of the Hudson Bay

Charles Gignac, INRS-ETE

14:30—Mapping Eelgrass Beds in shallow coastal Waters in Tabusintac (NB) using WorldView 2 optical Images

David Forsey, University of New-Brunswick

**13:30 - 14:50 | SH-3140  
AGRICULTURE #1**

13:30—Geospatial Analysis of Proximal Soil Sensing and Remote Sensing Data in Precision Agriculture

Md Saifuzzaman, McGill University

13:50—Synergy of TerraSAR-X and SPOT data for Object-based crop classification in South Africa

Masroor Hussain, PCI Geomatics

14:10—Soil Moisture Estimation in the Hunshandake Sandy Land from polarimetric SAR Data

Joseph Buckley, Royal Military College of Canada

14:30—Mapping and Quantification of Soil Cover on Southern Ontario Agricultural Fields

Ahmed Laamrani, Science and Technology Branch, Agriculture and Agri-Food Canada

**13:30 - 14:50 | SH-3220  
POLARIMÉTRIE COMPACTE /  
COMPACT POLARIMETRY**

13:30—Comparison of different compact polarimetry Modes in respect to the full polarization for the identification and characterization of the Land use Classes

Gabriel Gosselin, PCI Geomatics

13:50—Marine Surface Wind retrieval from simulated RCM-CP SAR Data for National SAR Winds System

Kerri Warner, Earth Observation & Geomatics - Environment and Climate Change Canada

14:10—Oil Slick Characterization using Simulated Compact Polarimetry Data

Gordon Staples, MDA GSI

14:30—Qualitative Assessment of RADARSAT Constellation Compact Polarimetry for CIS Operational Sea Ice Monitoring

Benoit Montpetit, Environnement et Changement Climatique Canada

**14:50 - 15:30 | POLYVALENTE  
PAUSE / BREAK**

**15:30 - 16:00 | AGORA  
AGMQ - LES TECHNOLOGIES D'OBSERVATION  
DE LA TERRE APPLIQUÉES AU MONDE  
MUNICIPAL ET RÉGIONAL**

**15:30 - 16:00 | CHAUFFERIE  
AGMQ - VITRINE TECHNOLOGIQUE**

Utilisation de l'ETL pour intégrer et exploiter les données du territoire disponibles en ligne

Félix Lafond-Touikan, Consortech

**15:30 - 16:50 | SH-2620  
ORGANIZATIONAL ACTIVITIES**

15:30—NASA Applied Science Program: Wildland Fire

Vincent Ambrosia, NASA Ames Research Center

15:50—The Global Observation of Forest Cover and Land Cover Dynamics (GOFC-GOLD) Fire Theme

Tim Lynham, Canadian Forest Service, Natural Resources Canada

16:10—Workshop Outcomes: Opportunities to Apply Remote Sensing in Boreal/Arctic Wildfire Management and Science

Alison York, University of Alaska Fairbanks

**JOUR 3 – JEUDI 22 JUIN 2017**  
**DAY 3 – THURSDAY, JUNE 22, 2017**

**15:30 - 16:50 | AMPHITHÉATRE  
TÉLÉDÉTECTION RSO DE PROCHAINE  
GÉNÉRATION DES GLACES MARINES ET DE  
LEURS PROPRIÉTÉS #3 / NEXT-GEN SAR RE-  
MOTE SENSING OF SEA ICE & ICE FEATURES#3**

15:30—Sea Ice and open Water retrieval from SAR using Bayesian Probability and multisource ancillary Data

Torsten Geldsetzer, Environment and Climate Change Canada

15:50—Automated Pan-Arctic Sea Ice Motion Tracking from Spaceborne Synthetic Aperture Radar

Mike Brady, Environment and Climate Change Canada

16:10—An Electromagnetic Backscatter Modeling of Iceberg at C-band

Md. Saimoom Ferdous, Memorial University of Newfoundland

16:30—Ku-, X-, and C-band Backscatter Evolution from a Saline Snow Cover on First-Year Sea Ice from Late-Winter to Pre-Early Melt

Vishnu Nandan, University of Calgary

**15:30 - 16:50 | SH-R810  
COLLABORATION ASC-DLR: SYNERGIE DES  
DONNÉES EN BANDE C & X #4 / CSA-DLR COL-  
LABORATION: C & X BAND DATA SYNERGIES #4**

15:30—Monitoring of Man-made Changes Using C- and X-Band SAR Satellite Data

Catherine Hartley, Airbus Defence and Space

15:50—Wide-Area Change Monitoring using RADARSAT-2 and TerraSAR-X

Fernando Greene, MDA

16:10—SAR-based Forest mapping and evaluation of TanDEM-X InSAR Height in Forest Stands

Daniel Baron, Georg-August Universität Göttingen

16:30—TanDEM-X Forest Canopy Height Mapping In NWT

Shane Cloude, AEL Consultants

**15:30 - 16:50 | SH-2420  
GÉOLOGIE / GEOLOGY**

15:30—Surface roughness and polarimetric SAR Signatures of Geologic Units in the Canadian Arctic

Byung-Hun Choe, The University of Western Ontario

15:50—Polarimetric SAR signatures and Kinematic LiDAR Scanning Surface Roughness of Periglacial Patterned Ground in the Canadian Arctic

Michael Zanetti, The University of Western Ontario

16:10—The use of deep convolutional neural Networks for surficial Geology Mapping

Rasim Latifovic, Canada Centre for Remote Sensing

16:30—SAR Quad Polarization for Improved Structural Mapping in the Central Region of the Manicouagan Impact Crater, Canada

Mary-Anne Fobert, University of New Brunswick

**15:30 - 16:50 | SH-3620  
SURVEILLANCE RSO DES MILIEUX HUMIDES #3 /  
SAR WATER AND WETLANDS MONITORING #3**

15:30—Surface Water Detection Using RADARSAT-2 Data

Sarah Banks, Environment and Climate Change Canada

15:50—Change Detection in Wetland Using RADARSAT-2 Full and Simulated Compact Polarimetric Time Series SAR Data

Mohammed Daboor, Environment and Climate Change Canada

16:10—A Synthetic Aperture Radar, Optical and Lidar, Data Fusion Approach to Wetland Classification in a Boreal Environment of the Utikuma Regional Study Area, Alberta, Canada

Joshua Montgomery, Department of Geography, University of Lethbridge

16:30—An Interferometric Coherence Analysis of Newfoundland Wetlands

Fariba Mohammadimanesh, C-CORE, Faculty of Engineering and Applied Science, Memorial University of Newfoundland

**JOUR 3 – JEUDI 22 JUIN 2017**  
**DAY 3 – THURSDAY, JUNE 22, 2017**

**15:30 - 16:50 | SH-3420**

**BATHYMETRIE ET TEMPÉRATURE DE SURFACE DES OCÉANS / BATHYMETRY AND SST**

**15:30**—Satellite Derived Bathymetry for improving Canadian Hydrographic Service Navigational Charts

René Chénier, Canadian Hydrographic Service

**15:50**—Bringing Acoustic Remote Sensing into the Mainstream

Vincent Lecours, University of Florida

**16:10**—Analyzing performances of different atmospheric correction techniques for Landsat data processing: Applications for shallow water bathymetry

Christopher Ilori, Simon Fraser University

**16:30**—Temporal Prediction of SST-Sea Surface Temperature along the Western Californian Coast for the period of years 1919-2015

Geetali Saha, G H Patel College of Engineering and Technology

**15:30 - 16:50 | SH-3140**

**AGRICULTURE #2**

**15:30**—Crop Classification Using the MNF Transformation of Multi-temporal RADARSAT-2 Polarimetric SAR Data

Chunhua Liao, University of Western Ontario

**15:50**—Assessing Unmanned Aerial Systems Imagery for Deriving Information Related to Potato Production

Anne Smith, Agriculture and Agri-Food Canada

**16:10**—Leaf Water Content Estimation in Grassland using Hyperspectral Remote Sensing

Phuong D. Dao, University of Toronto

**JOUR 3 – JEUDI 22 JUIN 2017**  
**DAY 3 – THURSDAY, JUNE 22, 2017**

**16:00 - 16:55 | AGORA**

**AGMQ - PLÉNIÈRE ET MOT DE FERMETURE**

Les technologies d'observation de la terre appliquées au monde municipal et régional

Stéphane Roche, Université Laval

**17:00 - 17:30 | AMPHITHEATRE**

**KEYNOTE - CONFÉRENCIER  
MIKE FLANNIGAN, UNIVERSITY OF ALBERTA /  
WESTERN PARTNERSHIP FOR WILDLAND FIRE  
SCIENCE**

Satellite remote-sensing information: Challenges and Opportunities for Canadian Fire Management Agencies

**17:30 - 17:50 | AMPHITHEATRE**

**WILDFIRE REMOTE SENSING WORKSHOP  
REPORT**

**17:50 - 18:00 | AMPHITHEATRE**

**EO SUMMIT 2017 CONCLUSION**

**AUTRES ÉVÉNEMENTS – VENDREDI 23 JUIN 2017**

**OTHER EVENTS – FRIDAY, JUNE 23, 2017**

**9:00 - 10:30 | SH-3620**

**SAR TUTORIAL #1**

Interferometric Processing

Gabriel Gosselin, PCI Geomatics

**10:30 - 11:00**

**PAUSE / BREAK**

**11:00 - 12:30 | SH-3620**

**SAR TUTORIAL #2**

Space-based GMTI radar

Chuck Livingstone, DRDC

**12:30 - 13:30**

**REPAS / LUNCH**

**13:30 - 15:30 | SH-3620**

**SAR TUTORIAL #3**

The role of Spaceborne SAR in Cryosphere Science

Bernd Scheuchl, University of California



**RADARSAT-2**  
 MDA is a world leader in space-based remote sensing solutions that serve the needs of customers globally

# SESSIONS INTERACTIVES POSTERS SESSION

SALLE /  
ROOM  
SH-3260

**SESSION INTERACTIVE #1 –  
MARDI 20 JUIN 2017  
POSTER SESSION #1 –  
TUESDAY, JUNE 20, 2017**

**10:30 - 15:30**

**COMPARISON OF UAV-BASED RGB CAMERA DATA TO MULTISPECTRAL IMAGERY FOR DETERMINING STRUCTURAL CHARACTERISTICS OF A CONIFEROUS FOREST**

Griffin Williams, Trent University

**A COMBINED METHOD FOR VEGETATION CLASSIFICATION BASED ON VISIBLE BANDS FROM UNMANNED AERIAL VEHICLES (UAV) IMAGES: A CASE STUDY FOR WILD PARSNIP PLANTS**

Jingyi Liu, Queen's University

**ALIGNMENT OF SPECTROMETER AND MULTISPECTRAL CAMERA DATA IN LOW-COST UAV REMOTE SENSING FOR PRECISION FARMING**

Chui Zeng, Carleton University

**UNMANNED AERIAL PHOTOGRAPHIC MAPPING OF INTERTIDAL EELGRASS**

Natasha Nahirnick, University of Victoria

**ASSESSING SOIL ORGANIC CARBON LEVELS AT THE SUB-FIELD SCALE IN SOUTHWESTERN ONTARIO USING UAVS WITH HYPERSPECTRAL, MULTISPECTRAL AND THERMAL SENSORS**

Ahmed Laamrani, Department of Plant Agriculture, University of Guelph

**CLOUDUAV: A NEW CANARIE NETWORK-ENABLED CLOUD-BASED OPEN SOURCE SOFTWARE PLATFORM FOR UAV RESEARCHERS**

Jordan Eamer, University of Calgary

**USING UAVS FOR OBSERVING PREDATORY BEHAVIOR TO INFER SKEENA EULACHON MIGRATION ROUTES**

Dillon, Buerk, Metlakatla Stewardship Society

**UAV-BASED PHOTGRAMMETRY PROVIDES AN ACCURATE AND COST-EFFECTIVE MEANS OF MAPPING NORTHERN LANDSCAPE CHANGES**

Robert Fraser, Canada Centre for Mapping and Earth Observation

**ESTIMATION OF WHEAT CANOPY HEIGHT USING UAV DERIVED 3D POINT CLOUD DATA**

Jinfei Wang, University of Western Ontario

**OFF-THE-SHELF UNMANNED AERIAL VEHICLE AT THE MER BLEUE BOG**

H.Peter White, Canada Centre for Remote Sensing, Natural Resources Canada, Ottawa

**SPATIAL ANALYSIS OF A MOUNTAIN PROFILE USING UNMANNED AERIAL VEHICLE (UAV) IMAGERY – A CASE STUDY FOR SKI RESORT DEVELOPMENT AND PLANNING**

Isabella Beharrell, Selkirk College

**MULTISPECTRAL LIDAR DATA CLUSTERING USING GAUSSIAN DECOMPOSITION**

Salem Morsy, Ryerson University

**AUTOMATED ROAD OBJECTS EXTRACTION FROM MOBILE LIDAR DATA**

Salem Morsy, Ryerson University

**ASSESSING THE CAPACITY OF UAV-BASED LIDAR TO SUPPORT OPERATIONAL-LEVEL FOREST INVENTORY IN DIFFERENT FOREST ENVIRONMENTS**

Bastien Vandendaele, Université de Sherbrooke

**A LOW-COST LIDAR SCANNING SCHEME INTEGRATING MULTI-BEAM LEDDAR, SERVO, AND VIDEO**

Zhouxin Xi, Department of Geography, University of Lethbridge

**AN OVERVIEW OF THE CANADIAN FEDERAL AIRBORNE LIDAR DATA ACQUISITION GUIDELINES**

Steven McArdle, 4DM

**SKYFORESTM TO COMPARE MULTI-RESOLUTION STEREO-IMAGE POINT CLOUDS WITH ALS DATA FOR ESTIMATION OF GREAT LAKES ST. LAWRENCE FOREST INVENTORY ATTRIBUTES**

Yaser Sadeghi, First Resource Management Group Inc.

**A COMPARISON OF RANDOM FOREST AND KNN FOR FRI MAPPING IN NORTHERN CANADA**

Craig Mahoney, University of Lethbridge

**ANALYSIS OF RADIOMETRIC ATTENUATION OF AIRBORNE MULTI-SPECTRAL LIDAR AT DIFFERENT RANGES**

Maxim Okhrimenko, University of Lethbridge

**THE USE OF UAV COLLECTED IMAGERY IN A SEMI-AUTOMATED WORKFLOW TO GENERATE GEOLOGIC STRUCTURE INFORMATION; A MASTER'S RESEARCH PROJECT**

Tyler Pubben, Vancouver Island University

**USING KULLBACK-LEIBLER DISTANCE FOR OBJECT-BASED CHANGE DETECTION IN HIGH SPATIAL RESOLUTION IMAGES**

Mohammad Rezaee, University of New Brunswick

**GEOSEGMENT: A TOOL FOR SEGMENTING IMAGE AND EVALUATING ITS QUALITY THROUGH AUTOMATED SHAPE COMPARISON**

Dongmei Chen, Queen's University

**RECONSTRUCTION OF LANDSAT TIME SERIES USING AN AVHRR BASED IMPUTATION APPROACH**

Darren Pouliot, Canada Centre for Remote Sensing

**USE OF LANDSAT 8 TO PRODUCE A CLOUD-FREE, MEDIUM-RESOLUTION, GLOBAL MOSAIC, NATURALVUE® 2.0**

Chris Peterson, MDA Information Systems, LLC

**MAPPING POTENTIAL MAYA SITES IN THE PETÉN CAMPECCHANO AREA (STATE OF CAMPECHE, MEXICO) USING OPTICAL AND RADAR REMOTE SENSING**

Armand LaRocque, Faculty of Forestry and Environmental Management, University of New Brunswick

**DETECTION OF MAYAN SACBEOB IN THE DENSE TROPICAL FOREST OF YUCATAN USING OPTICAL AND SAR IMAGERY**

Armand LaRocque, Faculty of Forestry and Environmental Management, University of New Brunswick

**DETECTION OF TROPICAL INDIGENOUS AND NON-INDIGENOUS COMMUNITIES ACROSS THE PERUVIAN AMAZON USING LANDSAT 8 IMAGERY AND GOOGLE EARTH ENGINE**

Lesley Johnson, McGill University

**SUPER-RESOLUTION OF HYPERSPECTRAL IMAGERY: USE OF UNMIXED COMPONENTS AND DEEP-LEARNING**

Jignesh Bhatt, Indian Institute of Information Technology, Vadodara

**COAL MINE RECLAMATION PERFORMANCE ASSESSMENT USING TIME-SERIES LANDSAT DATA**

Todd Shipman, Alberta Geological Survey, Alberta Energy Regulator

**DETECTION AND CLASSIFICATION OF FOREST DISTURBANCES IN THE ALBERTA OIL SANDS REGION USING LANDSAT TIME SERIES DATA**

Rachel Wasson, Trent University

**MINING ACTIVITY AND CARIBOU HABITAT: SEEKING WHERE MINING DISTURBANCES IMPACT THE BATHURST CARIBOU RANGE**

H.Peter White, Canada Centre for Remote Sensing, Natural Resources Canada, Ottawa

**RECOGNITION OF ALTERATIONS IN PORPHYRY COPPER DEPOSITS ZONES USING REMOTE SENSING AND AIRBORNE GEOPHYSICS DATA**

Ali Esmaeily, Graduate University of Advanced Technology

**SESSION INTERACTIVE #2 –  
MERCREDI 21 JUIN 2017  
POSTER SESSION #2 –  
WEDNESDAY, JUNE 21, 2017**

**10:30 - 15:30**

**INSAR IN COLD REGION HYDROLOGY: A CASE STUDY IN MONITORING RIVER ICE COVER DEFLECTION**

Zhaolin Li, University of Saskatchewan

**INTEGRATION OF GNSS, EO AND SATCOM FOR SNOW MONITORING IN CANADA - FIRST RESULTS OF ESA IAP SNOWSENSE DEMO PROJECT**

Florian Appel, VISTA Remote Sensing in Geosciences GmbH

**USING RADARSAT-2 TO IDENTIFY ICE GROWTH AND DECAY IN CENTRAL ONTARIO: 2008-2016**

Justin Murfitt, University of Toronto Mississauga

**COMMUNITY SEARCH AND RESCUE ICE INFORMATION PROJECT**

Thomas Zagon, Canadian Ice Service

**EVALUATION OF RANDOM FOREST SNOW DEPTH MODELING USING AIRBORNE LIDAR**

Kelsey Cartwright, University of Lethbridge

**LAKE ERIE ICE CLASSIFICATION USING DUAL POLARIZATION RADARSAT-2 IMAGERY**

Junqian Wang, University of Waterloo

**MONITORING ELA OF DURUNG DRUNG GLACIER OF GREATER HIMALAYA USING RISAT-1 (SAR) DATA**

Rupal Brahmbhatt, City of Mississauga (CO-Op student)

**ASSIMILATION DES OBSERVATIONS SPATIALES MICRO-ONDES DANS LE SCHÉMA DE SURFACE DU MODÈLE MÉTÉOROLOGIQUE CANADIEN POUR L'AMÉLIORATION DE LA PRÉVISION DES ANALYSES DE CHAMPS DE NEIGE**

Melody Poncin, Université de Sherbrooke

**SEA ICE SAR BACKSCATTERING ANALYSIS IN ANTARCTIC NAVIGATION ZONES**

Hector Salgado, Servicio de Hidrografía Naval

**SENSIBILITÉ DU SIGNAL PALSAR BANDE L À LA TEXTURE DU SOL ET À LA VÉGÉTATION AU NUNAVIK**

Chaima Touati, INRS-ETE

**ANALYSE ET ÉVALUATION DES DONNÉES DE GRILLE NEIGE DU QUÉBEC ISSUES DES MICRO-ONDES PASSIVES POUR LA GRANDE ET MANICOUAGAN DE 2006 À 2010**

Saida Farah Badreddine, Université de Sherbrooke

**EVALUATION OF RADARSAT-2 BASED DIGITAL ELEVATION MODELS DERIVED FROM INSAR FOR A FLAT INLAND DELTA IN THE HIGH LATITUDES OF NORTHERN CANADA**

Apurba Das, University of Saskatchewan

**METHODOLOGY FOR PRODUCING LANDSAT TIME SERIES ANALYSIS READY DATASETS: AN EXAMPLE FROM THE CANADIAN ARCTIC MIGRATORY BIRD SANCTUARIES**

Rasim Latifovic, Canada Centre for Remote Sensing

**APPLICATION OF DRONE IN COASTAL FLOOD EVENT MONITORING IN THE VOLTA DELTA, GHANA**

Kwasi Appeaning Addo, University of Ghana

**CONNECTING LETHBRIDGE: USING TOPO-BATHYMETRIC LIDAR AND HEC RAS TO ASSESS THE EFFECTS OF BRIDGE DEVELOPMENT ON THE OLDMAN RIVER FLOODPLAIN**

Chris Hopkinson, University of Lethbridge

**EVALUATING THE STATISTICAL CHARACTERISTICS OF THE DIFFERENCE AMONG SUB-DAILY GPM SATELLITE-BASED PRECIPITATION ESTIMATES OVER THE MIDDLE EAST**

Mohamed Shawky, University of Calgary

**DEVELOPMENT OF RATING CURVES ESTIMATES FOR RIVER DISCHARGE USING RADARSAT IMAGERY**

Karem Chokmani, INRS-ETE

**VARIATION IN DISTRIBUTION AND SIZE STRUCTURE OF PRAIRIE POTHOLE WETLANDS**

Xulin Guo, University of Saskatchewan

**FOREST HEIGHT ESTIMATION USING MULTI-BASELINE POLARIMETRIC SAR INTERFEROMETRY AND MACHINE LEARNING**

Michael Denbina, NASA Jet Propulsion Laboratory

**RIVER ICE BREAKUP MONITORING WITH THE RADARSAT CONSTELLATION MISSION: PRELIMINARY RESULTS**

Yask Shelat, Canada Centre for Mapping and Earth Observation

**CONTRIBUTION DES SATELLITES SURFACE WATER AND OCEAN TOPOGRAPHY (SWOT) ET RADARSAT-2 POUR LA MODÉLISATION HYDRAULIQUE DE LA RÉGION DU DELTA DES RIVIÈRES DE LA PAIX ET ATHABASCA**

Sébastien Langlois, Université de Sherbrooke

**GROUND SUBSIDENCE AND INFRASTRUCTURE MONITORING WITH THE HIGHEST RESOLUTION AND ACCURACY CURRENTLY AVAILABLE FROM SPACE-BASED SAR SYSTEMS**

Valentin Poncos, Kepler Space Inc.

**UNE NOUVELLE MÉTHODE DE DÉROULEMENT DE PHASE INTERFÉROMÉTRIQUE BASÉE SUR UNE MINIMISATION DE L'ÉNERGIE À PARTIR D'UNE MODÉLISATION CONTEXTUELLE**

Ayoub Tili, Université de Montréal

**USING RADARSAT-2 TO TARGET AREAS AT RISK OF CORROSION OF HYDRO-QUÉBEC'S PYLON'S FOUNDATIONS**

Guy Aubé, Canadian Space Agency

**K-SAR – A GROUND-BASED SAR SYSTEM FOR VERTICAL INFRASTRUCTURE STABILITY MONITORING AND SAR TOMOGRAPHY DEVELOPED BY KEPLER SPACE**

Valentin Poncos, Kepler Space Inc.

**SARSIM-3: A TOOL FOR ESTIMATING THE PERFORMANCE OF MULTI-APERTURE SYNTHETIC RADAR SYSTEMS**

Ron Saper, Astrocom

**DÉVELOPPEMENT D'UN MODULE D'INTRODUCTION À LA TÉLÉDÉTECTION - PROJET NORTSENSE**

Audrey Moffett, INRS-Eau Terre Environnement

**SAR-EDU: TEACHING EARTH OBSERVATION IN AN ONLINE ENVIRONMENT**

Christiane Schmullius, Friedrich-Schiller-University

**FUSING LIDAR AND RUNOFF TIME SERIES DATA TO MODEL FLOOD SCENARIOS IN THE HEADWATERS OF THE OLDMAN RIVER BASIN, ALBERTA**

Chris Hopkinson, University of Lethbridge

**SESSION INTERACTIVE #3 –  
JEUDI 22 JUIN 2017  
POSTER SESSION #3 –  
THURSDAY, JUNE 22, 2017**

**10:30 - 15:30**

**LIDAR AND MULTISPECTRAL CLASSIFICATION OF BALSAM FIR TREE STATUS FOR ACCURATE PREDICTIONS OF MERCHANTABLE VOLUME**

Sarah Yoga, Laval University

**STATUS OF DUCKS UNLIMITED CANADA'S ENHANCED WETLAND CLASSIFICATION (EWC) INVENTORY AND CASE STUDY OF THE AKAITCHO WETLAND MAPPING PROJECT**

Michael Merchant, Ducks Unlimited Canada

**AN OBJECT-ORIENTED APPROACH FOR LAND COVER CHANGE DETECTION USING SYNTHETIC APERTURE RADAR TIME-SERIES AND OPEN SOURCE SOLUTIONS: A CASE STUDY IN THE GUAYAS RIVER DELTA, ECUADOR**

Charlotte Smetanka, Université de Sherbrooke

**HYDRODYNAMICS OF THE PEACE-ATHABASCA WETLANDS FROM HIGH-RESOLUTION SPACE-BORNE INSAR**

Gabriela Siles, Université de Sherbrooke

**ANALYZING COASTLINES EXTRACTED FROM RADARSAT-2 IMAGERY: THE EFFECT OF TOPOGRAPHIC AND SEA-SURFACE CONDITIONS**

Koreen Millard, Defence Research and Development Canada (DRDC)

**A COMPARISON OF WORLDVIEW-2, PLEIADES AND RAPIDEYE IMAGERY FOR REMOTE SENSING OF SUBMERGED EELGRASS**

Heather Ward, Stantec Consulting Ltd

**ADVANCES IN REMOTE SENSING OF INLAND WATER QUALITY AND VEGETATION DYNAMICS BY MEANS OF SENTINEL-2A AND LANDSAT-8 DATA. APPLICATION IN AN ARCTIC RIVER BASIN (NUNAVIK, CANADA)**

Jean-Pierre Dedieu, CNRS

**ASSESSMENT OF LABORATORY AND SONDE-BASED MEASURES OF CHLOROPHYLL-A, TURBIDITY, AND ORGANIC CARBON IN DIFFERENT WATERSHEDS IN CANADA**

Kiana Zolfaghari, Agriculture and Agri-Food Canada

**LONG-TERM SPATIAL-TEMPORAL EELGRASS HABITAT CHANGE (1932-2016) IN THE SALISH SEA**

Natasha Nahirnick, University of Victoria

**GAINING DATA OF SURFACE CHLOROPHYLL-A IN THE SALISH SEA THROUGH MULTI-SENSOR MERGING AND CLOUD-FILLING INTERPOLATION**

Andrea Hilborn, Department of Geography, University of Victoria

**MODELING SPATIO-TEMPORAL VARIATION OF ALgal BLOOM USING MODIS INLAND WATERS DATA PROCESSING**

Claudie Ratté-Fortin, INRS-ETE

**ANALYSE COMPARATIVE DES MODÈLES BIO-OPTIQUES D'ABSORPTION DE LA MATIÈRE ORGANIQUE DISSOUE COLORÉE DANS LES EAUX TROPICALES EN UTILISANT LES DONNÉES LANDSAT 5 TM: CAS DU RÉSERVOIR DU FUNIL (BRÉSIL)**

Sarah Martins, INRS

**PATTERNS AND CHANGES OF URBAN FLASH FLOOD RISKS IN TWO CANADIAN URBAN CENTRES**

Jinfei Wang, The University of Western Ontario

**URBAN ROAD DETECTION ON HIGH RESOLUTION SATELLITE RADAR IMAGES FOR NATURAL DISASTER EMERGENCY RESPONSE**

Francis Charette Migneault, Laboratoire d'imagerie, de vision et d'intelligence artificielle (LIVIA), École de technologie supérieure, Université du Québec

**EXTRACTION DES INFORMATIONS SUR LA MORPHOLOGIE DES MILIEUX URBAINS PAR ANALYSE DES IMAGES RADARS INTERFÉROMÉTRIQUES**

Michelle Aubrun, Département de géographie, Université de Montréal

**ESRI CITYENGINE EVALUATION FOR AUTOMATIC GENERATION OF 3D MODELS**

Frank Zhang, Selkirk College

**TRAVAUX D'AGRANDISSEMENT DU TERMINAL PORTUAIRE DE CONTREŒUR: SUIVI DES ÉCOSYSTÈMES CÔTIERS À L'AIDE DES TECHNOLOGIES D'OBSERVATION DE LA TERRE**

Guy Aubé, Canadian Space Agency

**ÉVALUATION DE L'APPORT DES DONNÉES POLARIMÉTRIQUES RADARSAT-2 POUR LE SUIVI DE L'HUMIDITÉ DU SOL ET LA CLASSIFICATION DES STRUCTURES INTERNES DES TOURBIÈRES**

Ouail Messari, Institut national de la recherche scientifique

**EVALUATING THE DROUGHT-INDUCED VARIATION IN LAND SURFACE PHENOLOGY OF THE SEMI-ARID CANADIAN PRAIRIE USING AVHRR NDVI TIME SERIES**

Xulin Guo, University of Saskatchewan

**DETECTING VEGETATION CHARACTERISTICS USING REMOTE SENSING DATA AND RADIATION TRANSFER MODELING**

Bing Lu, University of Toronto Mississauga

**INTEGRATING FUNCTIONAL PERSPECTIVE OF PLANT CO-OCCURRENCE WITH RARE SPECIES DISTRIBUTION MODELS: AN APPROACH TO MAXIMIZE REMOTELY SENSED PREDICTION ACCURACY OF LOW PREVALENCE SPECIES**

Anjika Attanayake, University of Saskatchewan

**SAMPLING OPTIMIZATION FOR SOIL-NUTRIENT MAPPING**

Hsin-Hui Huang, McGill University

**REGIONAL MONITORING OF IRRIGATION AND WATER UPTAKE IN DESERT AREAS USING FREE EARTH OBSERVATION DATA**

Mimouni Mustapha, Sahara and Sahel Observatory

APPORTS DES DONNÉES MULTISPECTRALES LANDSAT  
DANS UNE APPROCHE DE SUIVI DE DYNAMIQUE DES FORÊTS  
DANS LES CONCESSIONS FORESTIÈRES DES COMMUNAUTÉS  
LOCALES DU HAUT-KATANGA  
Nsiami Mabiala Catherine, Université de Lubumbashi

RÉSILIENCE DES PEUPLEMENTS D'ÉPINETTE NOIRE FACE AUX  
SUCCESIONS RAPPROCHÉES D'ÉPIDÉMIE D'INSECTE ET DE FEU  
Maude Perrault-Hébert, Université de Montréal

LINKING SPACEBORNE AND GROUND OBSERVATIONS OF FALL  
FOLIAGE IN SOUTHERN QUÈBEC, CANADA  
Offer Rozenstein, Institute of Soil, Water and Environmental Sciences

TOPOGRAPHY AND CANOPY COVER CHANGE IN THE ALPINE  
TREELINE ECOTONE: CENTURY-SCALE OBSERVATIONS  
David McCaffrey, Department of Geography, University of Lethbridge

A CANADA-WIDE PRODUCT FOR STUDYING REGIONAL  
AND SEASONAL VARIATIONS IN BURN SEVERITY  
Luc Guindon, Can

OBLIQUE PHOTOGRAPHY AND CANOPY COVER  
CLASSIFICATION IN THE ALPINE TREELINE ECOTONE  
David McCaffrey, University of Lethbridge

INDIVIDUAL TREE CROWN HEIGHT ESTIMATION USING  
HIGH-RESOLUTION AIRBORNE HYPERSPECTRAL IMAGERY  
Frank Zhang, Selkirk College

VOLUME PREDICTIONS FOR NATURAL VEGETATION AND  
EUCALYPTUS PLANTATIONS IN SAVANNA ECOSYSTEMS  
WITH FIELD OBSERVATIONS AND LANDSAT MULTITEMPORAL  
IMAGERY IN BRAZIL  
Aliny Aparecida Dos Reis, Federal University of Lavras - UFLA

THE EFFECT OF DYNAMISM OF URBAN EXPANSIONS  
TO THE WATER RESOURCES OF MEKNÈS CITY. CONTRIBUTION  
MULTI SOURCE SPATIAL IMAGERY.  
Soufyane Nasri, University Hassan II Casablanca

## NOTES

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