



**Physics and Astronomy Atrium and Room 106**

**March 31, 2016**

**6:00 – 11:00 PM:**      **Meet, Greet and Registration at Spoke Café**

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**April 1, 2016**

**Note: Keynote Speakers and Technical Session talks will be held in Room 106 in the Physics and Astronomy Building. Poster Sessions will be in the Physics and Astronomy Atrium**

**8:30 – 9:00 AM:**      **Registration and Poster Setup in Physics and Astronomy Atrium**

**9:00 – 9:15 AM:**      **Welcome from the AESRC Committee**

**9:15 – 10:15 AM:**      **Technical Session 1: Environmental**

TIME	TITLE	SPEAKER
9:15 – 9:30 AM	ISOTOPIC ANALYSIS OF BLACK CARBON IN CANADIAN ARCTIC AIR	Marianne Luna
9:30 – 9:45 AM	RECONSTRUCTING ARCTIC SEA ICE COVER FROM LONG-LIVED CORALLINE ALGAE	Sarah Shana
9:45 – 10:00 AM	HOLOCENE CARBON BALANCE AND TESTATE AMOEBAE COMMUNITY STRUCTURE IN THE HUDSON BAY LOWLANDS, ONTARIO, CANADA	Marissa Davies
10:00 – 10:15 AM	A CASE STUDY OF HOUSTON, TEXAS: RISK ANALYSIS OF FLOOD EVENTS LED BY HURRICANE STORM SURGE AND EXTREME RAINFALL RUNOFF	Elaine Lu

**10:15 – 10:30 AM:**      **Coffee Break in Physics and Astronomy Atrium**

**10:30 AM – 12:00 PM: Technical Session 2: Sedimentary Geology and Paleontology I**

TIME	TITLE	SPEAKER
10:30 – 10:45 AM	CLEARING THE MUDDY WATERS: HIGH-RESOLUTION SEDIMENTOLOGICAL ANALYSIS OF MATRIX-RICH SANDSTONE IN THE WINDERMERE TURBIDITE SYSTEM AND COMPARISON WITH EQUIVALENT DEPOSITS FROM OTHER DEEP-MARINE SYSTEMS	Jag Ningthoujam
10:45 – 11:00 AM	INVESTIGATING THE CONTROLS ON THE DISTRIBUTION OF EDIACARAN DEPOSITS AND THE IMPACT ON THEIR MORPHOLOGY IN SOUTHERN NAMIBIA	Katie Maloney
11:00 – 11:15 AM	CONSTRUCTION AND USE OF AN EXPERIMENTAL VESSEL TO INVESTIGATE THE INFLUENCE OF CLAY MINERALOGY ON SOFT-TISSUE DECAY AND PRESERVATION	Amanda Facciol
11:15 – 11:30 AM	SOFT-SEDIMENT DEFORMATION STRUCTURE AND RELATED MICROBIAL MAT STRUCTURES IN GORDON LAKE FORMATION, HURONIAN SUPERGROUP	Carolyn Hill
11:30 – 11:45 AM	SOLVING THE SECOND WHITE SPECKS: INTEGRATING PETROPHYSICS AND ALLOSTRATIGRAPHY TO FIND THE SWEET SPOTS	Kienan Marion
11:45 AM – 12:00 PM	ALLOSTRATIGRAPHIC ANALYSIS OF THE MARINE TO NON-MARINE TRANSITION IN LATE ALBIAN STRAT, SW ALBERTA	Celeste Cunningham

**12:00 – 12:45 PM: Lunch in Physics and Astronomy Atrium**

**12:45 – 1:15 AM: Keynote Speaker**

**Speaker: Marc Laflamme**

**Title: “The First Mass-Extinction of Complex Life”**

**1:15 – 1:45 PM: Technical Session 3: Sedimentary Geology and Paleontology II**

TIME	TITLE	SPEAKER
1:15 – 1:30 PM	STABLE ISOTOPES OF ANCIENT BONES AS A PROXY FOR PALEOENVIRONMENT: THE CASE OF LATE PLEISTOCENE MUSKOXEN	Stephanie Mabee
1:30 – 1:45 PM	PALEOENVIRONMENTAL IMPLICATION OF RUGOSE CORAL GROWTH RIDGED IN THE MIDDLE DEVONIAN HUNGRY HOLLOW MEMBER, MICHIGAN BASIN	Andrew Thomson

**1:45 – 2:30 PM: Technical Session 4: Posters**

**2:30 – 3:00 PM: Keynote Speaker**

**Speaker: Keith Barron**

**Title: “Exploring for Gold in the Amazon Regions of Ecuador”**

**3:00 – 3:30 PM: Technical Session 5: Economic Geology Sponsored by the Society of Economic Geologists**

TIME	TITLE	SPEAKER
3:00 – 3:15 PM	SYNTHETIC APERTURE RADAR FOR GEOLOGICAL MAPPING SALT DIAPYRS, AXEL HEIBERG ISLAND, NU	Elise Harrington
3:15 – 3:30 PM	PD DEPARTMENT IN THE NO-SEE-UM ZONE OF THE LAC DE ILES COMPLEX, ONTARIO	Yining Wang

**3:30 - 4:00 PM: Technical Session 6: Igneous and Metamorphic Geology and Geochemistry**

TIME	TITLE	SPEAKER
<b>3:30 – 3:45 PM</b>	USE OF ANISOTROPY OF MAGNETIC SUSCEPTIBILITY TO ANALYZE PETRO-FABRICS IN CU AND PGE BEARING GABBROIC UNITS OF THE MARATHON CU-PGE DEPOSIT, ONTARIO	Hiruni Gunawardana
<b>3:45 – 4:00 PM</b>	EXPERIMENTAL CONSTRAINT ON CALCIUM ISOTOPIC FRACTIONATION IN CARBONATED MELTS	Matthew Maloney

**7:00 – 11:00 PM: Conference Dinner**

**8:00 - 8:30 PM: Adrian Smith: "Volunteering: More Than a Means to an End A Small-Town Ontarian's Perspective"**

**8:30 - 9:00 PM: Collin Etienne: "Preparing for the Oil and Gas Industry"**

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**April 2, 2016**

**8:45 – 9:15 AM: Keynote Speaker**

**Speaker: Robert Shcherbakov**

**Title: "Physics and Statistics of Aftershocks"**

**9:15 –10:15 AM: Technical Session 7: Geophysics I Sponsored by the Solid Earth Section**

TIME	TITLE	SPEAKER
<b>9:15– 9:30 AM</b>	VIBRATION MONITORING AT WIND TURBINE SITE IN PORT ALMA	Melanie Postman
<b>9:30 – 9:45 AM</b>	BEST STRATEGIES AND PRACTICES FOR EARTHQUAKE SITE CHARACTERIZATION AT ONTARIO BRIDGE SITES	Alex Bilson Darko
<b>9:45 – 10:00 AM</b>	INVESTIGATION OF THE IMPACT OF PRE-EXISTING FRACTURES IN ENHANCES RESERVOIR TREATMENTS	Hongyuan Zhou
<b>10:00 – 10:15 AM</b>	FRACTURE PROPAGATION CHARACTERISTICS AND MICROMECHANISMS ANALYSIS OF UNCONVENTIONAL RESERVOIRS SANDSTONE USING ACIDIZING PROCESS AND INDENTATION EXPERIMENT	Jinghan Zhong

**10:15 - 10:30 AM: Coffee Break in Physics and Astronomy Atrium**

**10:30 –11:15 AM: Technical Session 8: Geophysics II Sponsored by the Solid Earth Section**

TIME	TITLE	SPEAKER
<b>10:30 – 10:45 PM</b>	FOLD SEGMENT LINKAGE AND UPLIFT RATES ALONG THE JANAURI AND CHANDIGARH ANTICLINES, NORTHWESTERN INDIA	Evelyn Moorhouse
<b>10:45– 11:00 PM</b>	FINITE/DISCRETE ELEMENT MODELING OF TUNNEL STABILITY IN SWELLING SHALY GROUND	Yusheng Qiu
<b>11:00 – 11:15 PM</b>	DEEP EARTHQUAKES IN THE LAB: DETECTION OF ACOUSTIC ACTIVITY DUE TO TRANSFORMATIONAL FAULTING ASSOCIATED WITH THE OLIVINE TO SPINEL TRANSFORMATION IN FAYALITE	Timothy Officer

**11:15 AM – 12:00 PM: Technical Session 9: Posters**

**12:00 – 1:00 PM: Lunch in Physics and Astronomy Atrium**

**AESRC Annual General Meeting in Room 106 in the Physics and Astronomy Building**

**1:00 – 1:30 PM: Keynote Speaker**

Speaker: Phil McCausland

Title: "X-ray Micro CT Imaging of Meteorites: A New Frontier in Non-Destructive 3D Sample Analysis"

1:30 – 2:00 PM: Technical Session 10: Planetary

TIME	TITLE	SPEAKER
1:30 – 1:45 PM	PIECES OF THE PLANET BUILDING PUZZLE: CHARACTERIZATION OF EARLY SOLAR SYSTEM MELT ENVIRONMENTS RECORDED IN THE UREILITE, LONDRANITE-ACAPULOCOITE AND METACHONDRITE METEORITE GROUPS	Brendt Hyde
1:45 – 2:00 PM	OPTICAL MATURITY AND ROCK ABUNDANCE: DATING THE LUNAR SURFACE WITH REMOTE SENSING	Christian Udovicic

2:00 – 2:30 PM: Break in Physics and Astronomy Atrium

2:30 – 2:45 PM: Awards in Physics and Astronomy Atrium

#### Poster Presentations

Location	TITLE	Presenter
A	EVALUATION AND CLASSIFICATION OF AN UNTYPED ORDINARY CHONDRITE	Stephen Korchinos
B	CLASSIFICATION OF AN UNIDENTIFIED ORDINARY CHONDRITE	Tanya Kizovski and Caroline Lee
C	SPACE ROCKS ROCK! CLASSIFYING NEW METEORITE IN THE ROM'S COLLECTION	Jenny Li
D	CATION ORDERING IN SPINEL FROM CALCIUM ALUMINUM INCLUSIONS IN CARBONACEOUS CHONDRITES TO QUANTIFY TEMPERATURE IN THE EARLY SOLAR NEBULA	Victoria Houde
E	THE CONTRIBUTION OF UNCERTAINTY IN MAGNITUDE AND LOCATION TO NEAR-DISTANCE VARIABILITY IN GROUND MOTIONS FOR POTENTIALLY-INDUCED EARTHQUAKES IN OKLAHOMA	Joanna Holmgren
F	APPLYING BINARY FORECASTING APPROACHES TO INDUCED SEISMICITY IN THE WESTERN CANADA SEDIMENTARY BASIN	Ryan Kahue
G	THE ROLE OF NON-INVASIVE AMBIENT NOISE ANALYSIS IN IMPROVING SEISMIC MICROZONATION MAPPING IN VANCOUVER, BRITISH COLUMBIA, CANADA	Frederick Jackson
H	CHARACTERIZATION OF EARTHQUAKE SITE AMPLIFICATION IN ALBERTA, CANADA	Joseph Farrugia
I	QUANTIFICATION OF SHOCK STAGES IN UREILITE OLIVINE IN NWA 221 BY INSITU MICRO-X-RAY DIFFRACTION	Yaozhu Li
J	AGE AND PETROLOGY OF POSSIBLE GRENVILLE-AGE CRUSTAL XENOLITHS FROM KIMBERLITE IN EASTERN KENTUCKY	Richard Chow
K	P-T-X CONSTRAINTS ON ILMENITE UNIT CELL AND RELATIONSHIP TO DIAMOND POTENTIAL IN KIMBERLITES	Mitchell Galarneau
L	THE RELATIONSHIP BETWEEN PYRITE BEARING VEINS AND GOLD WITHIN THE CANADIAN MALARTIC FOOTPRINT	Neera Sundaralingam
M	FINE FRACTION INDICATOR MINERAL SIGNATURES OF PORPHYRY, VMS AND OTHER DEPOSITS	Donald Loughheed
N	CARBONATE ISOTOPES OF SHELLY FAUNA DESCRIBE LATE-PLEISTOCENE-HOLOCENE DEPOSITIONAL ENVIRONMENT IN THE HURON BASIN, ONTARIO, CANADA	Jane Wilson
O	REGIONAL DISTRIBUTION AND SPATIAL PATTERNS OF RECENT SHALLOW WATER BENTHIC FORAMINIFERA FROM PUNTA CHIVATO, GULF OF CALIFORNIA MEXICO	Melanie Delago Brand
P	BENTHIC FORAMINIFERA ASSEMBLAGES FROM ISLA SAN JOSE, GULF OF CALIFORNIA MEXICO	Cedelle Pereira
Q	LAUNCHING YOUR RESEARCH: INTERNATIONAL FIELD STUDY EXPERIENCE IN SAN SALVADOR, THE BAHAMAS	Johnathan Davidson
R	INFLUENCE OF THE PRESENCE OF GAS PHASE ON THE ROCK DEFORMATION PROCESSES: A NUMERICAL STUDY	Hongyuan Zhou and Yusheng Qiu on behalf of Olga Kovaleva