### 2019 Western-ICLR Multi-hazard Risk and Resilience Workshop







November 4<sup>th</sup> & 5<sup>th</sup>, 2019 Physics and Astronomy Building Room 148 Western University

## **Program**

Day 1 – Monday

Opening: 8:45 – 9:00 Matt Davison (Dean of Faculty of Science, Western University),

Session 1: Multi-hazard risk and resilience assessment in a changing environment (Session Chair: Davison and Aghakouchak)

9:00-9:40, Short introductory presentation from speakers and attendees

9:40-10:00, Prof. Slobodan Simonovic (Western), 'Mutli-hazard resilience'

10:00-10:20, Prof. Stephen Evans (Waterloo) 'Structure of destructive geological cascades; implications for risk'

10:20-10:40, Prof. Matt Davison 'Insights from financial risk management for disaster risk'

20 min break

11:00-11:20, Prof. Horia Hangan (Western) 'Non-synoptic winds and their impacts on buildings and structures'

11:20-11:40, Mr. Dan Sandink (ICLR) 'ICLR activities for reducing risk of basement flood, high wind and fire for Canadian homes'

11:40-12:00, Prof. Jiandong Ren (Western) 'Insurance risks for natural disasters'

Lunch: 12:00-13:00 (Physics and Astronomy Building Atrium)

# Session 2: Cross-disciplinary topics for natural hazard and risk assessment: modelling complexity/dependency and new emerging techniques (Session Chair: Mori and Najafi)

13:00-13:20, Prof. Mahesh Pandey (Waterloo) 'Probabilistic assessment of damage cost under multiple seismic hazards'

13:20-13:40, Dr. Boyu Feng (Western) 'The Impact of urbanization on urban flooding using hydrologic/hydraulic models'

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13:40-14:00, Prof. Amir Aghakouchak (UC Irvine) 'Multi-hazard scenarios for analysis of compound extreme events'

14:00-14:20, Dr. Ying Zhang (NRCan) 'Earth observation based processing frameworks for post-disaster response and assessment in urban areas'

14:20-14:40, Mr. Nick Martyn (RiskLogik Inc.) 'An ensemble approach to holistic flood risk assessment'

20 min break

15:00-15:20, Prof. Sriram Narasimhan (Waterloo) 'Robotics and non-contact sensing for infrastructure risk assessment'

15:20-15:40, Prof. Gail Atkinson (Western) 'Induced seismicity: implications of non-stationary hazards and risks'

15:40-16:00, Dr. Kristin Clemens (St. Joseph's Health Care London/Western) 'The impact of ambient temperature on health outcomes in Ontario'

16:00-16:20, Dr. Erin Azzopardi (Mitacs) and Ms. Kate Huner-Johnson (Western) to introduce NSERC Alliance and Mitacs Accelerate funding

16:20-17:30, Topics for discussion, Discussions facilitated by the session chairs and continues at Social Dinner Discussion

18:00 - end, Social Dinner Discussion @ Windermere Manor/Western

Registration and RSVP required
Dinner will be provided

#### Day 2 - Tuesday

Session 3: Linking hazard, exposure, risk and resilience across multiple hazards – disciplinary contributions (Session Chair: Martell and Molnar)

9:00-9:20, Briefing from Day 1 discussion

9:20-9:40, Prof. Nobuhito Mori (Kyoto University) 'Long-term hazard assessment of coastal and river flooding by tsunami and typhoons in Japan

9:40-10:00, Prof. David Martell (Toronto) 'Integrated landscape management to protect forest resources, infrastructure and communities'

10:00-10:20, Prof. Reza Najafi (Western) 'Characterizing the compounding effects of pluvial, riverine and coastal flooding in St. Lucia'

20 min break

10:40-11:00, Prof. Tomohiro Yasuda (Kansai University) 'Assessment of annual aggregate risk by storm surge disaster in Japanese major bays'

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11:00-11:20, Prof. Sheri Molnar (Western) 'Site-specific seismic hazard assessment in Canada'

11:20-11:40, Prof. Eric Desjardins (Western, Rotman Institute of Philosophy) 'Pluralism for a geo-socio-ecological perspective on multi-hazard resilience'

11:40-12:00, Mr. Colin McFayden (Aviation, Forest Fire and Emergency Services, ON Min. Nat. Res. & For.) 'Risk and wildland fire management in Ontario'

Lunch: 12:00-13:00 (Physics and Astronomy Building Atrium)

Session 4: Linking hazard, exposure, risk and resilience across multiple hazards future needs (research, education, public involvement, role of private sector, role of governments) and from theory to practice (Session Chair: Journeay and Kovacs)

13:00-13:20, Mr. Murray Journeay and Dr. Michal Kolaj (NRCan) 'A national earthquake hazard and risk profile of Canada'

13:20-13:40, Nicky Hastings (NRCan), 'How can Canadian coastal communities understand and mitigate against coastal flooding?

13:40-14:00, Mr. Cordy Tymstra (Wildfire Management, Government of Alberta) 'Early warning systems for enhanced situational awareness and preparedness for spring wildfire activity in Alberta, Canada'

14:00-14:20, Mr. Paul Kovacs (ICLR) 'Research to support implementation of the Sendai Framework for Disaster Risk Reduction'

14:20-14:40, Topics for break-up sessions, led by Prof. Reza Najafi

20 min break

15:00-16:30 Break-up sessions, led by Prof. Reza Najafi and the organizing committee members

Closing words

17:00 - end Social Dinner @ GradClub - Dinner will be provided

