



CALGARY, April 12, 2017 – For Release

‘Solutions Canada’ teams businesses with scientists to solve quantitative challenges

Canada’s institutes for the mathematical and statistical sciences have formed [Solutions Canada](#), a national network to help Canadian businesses solve problems and advance the development of their products and services.

The Solutions Canada network ([solutionscanada.com](#)) serves as a bridge connecting Canadian companies with quantitative scientists who solve problems through modeling, optimization, simulation and data science, facilitating collaborations between companies, research scientists, and students in the mathematical sciences.

Five institutes have partnered to form Solutions Canada: AARMS, CANSSI, CRM, Fields Institute, and PIMS. Solutions Canada represents one of the ways that the Canadian institutes in mathematical and statistical sciences are using their expertise to develop the Canadian economy, which is becoming ever more dependent upon high technology. “Mathematical sciences form the basis for technological advances through all industry sectors,” says PIMS Director James Colliander. “Solutions Canada is a gateway for businesses to connect with problem solving experts in computer science, mathematics and statistics.”

Solutions Canada will showcase success stories of industry problems solved through mathematical methods. Example projects include:

- Reducing costs in aeronautics flight testing of helicopters by using data reduction techniques to identify, via simulation, the key forces and stresses that must be monitored in a real flight test.
- Streamlining the assembly of high performance automobile tires using statistical test design and analysis of harmonics to ensure uniform quality and a smooth, quiet ride.
- Expanding markets in monitoring railways, pipelines, and seismic events for a remote sensing services company, by developing novel algorithms to process signals from fibre optic sensing devices.
- Developing a successful buyer-seller value exchange model for emerging open markets in agriculture products on the prairies.

Solutions Canada will guide each participating company to a match with research teams that have the appropriate expertise and experience to attack their unique problems. With the support of its funding partners, Solutions Canada will help to establish collaborations through graduate student internships, research grants, and other funding mechanisms.

“University of Calgary researchers, and scholars across the country, look forward to partnering with industry to work on real-life challenges, closing the gap between discovery and innovation,” says Cristian Rios, associate professor at the University of Calgary and PIMS Calgary Site Director. “Students will also have access to unique training that will help prepare them to be leaders in problem-driven research in the future.”

Contact:

Interested organizations can contact Solutions Canada at contact@solutionscanada.com or visit [solutionscanada.com](#).

‘Solutions Canada’ Partner Institutes:

[PIMS](#) (Pacific Institute for the Mathematical Sciences): Founded in 1996, PIMS intertwines 11 major universities in the Canadian West and American Northwest to promote discovery, understanding and awareness in all areas of the mathematical sciences.

[AARMS](#) (Atlantic Association for Research in the Mathematical Sciences): Created in 1997, based in the Atlantic provinces, advancing research in all areas of mathematical sciences, including statistics and computer science.

[CANSSI](#) (Canadian Statistical Sciences Institute): Launched in 2012, a national institute supplying leadership and infrastructure for deepening research in the statistical sciences.

[CRM](#) (Centre de recherches mathématiques): A hub for the mathematical sciences worldwide, thanks to its renowned thematic programs, its scientific workshops, and its thirteen laboratories. It includes more than 200 researchers from twelve major universities in Québec and Ontario.

[The Fields Institute for Research in Mathematical Sciences](#): An international research centre in the mathematical sciences, located at the University of Toronto. It bears the name of the mathematician John Charles Fields (1863-1932), professor at the University of Toronto and founder of the Fields Medal.

Funding and Support:

- The Natural Sciences and Engineering Research Council of Canada (NSERC) funds the activities of the institutes, including initiatives to foster partnerships between mathematics and statistics researchers and their partners in the public and private sectors. Through academic/industry collaborations, companies can access NSERC research funding for student internships and research partnership programs.
- Mitacs, a national not-for-profit research and training organization, has partnered with the institutes to support graduate students and postdoctoral researchers on internships with industry and not-for-profits.
- Each province supports the researchers of the institutes through their funding of the supporting universities, and in many cases through direct grants to the institutes.

About the University of Calgary:

The University of Calgary is a member of PIMS (Pacific Institute for the Mathematical Sciences) and CANSSI (Canadian Statistical Sciences Institute).

The University of Calgary is making tremendous progress on its journey to become one of Canada's top five research universities, where research and innovative teaching go hand in hand, and where we fully engage the communities we both serve and lead. This strategy is called *Eyes High*, inspired by the university's Gaelic motto, which translates as 'I will lift up my eyes.'