



## Post Doctoral Position in Computational Fluid Dynamics applied to Coronary Artery Disease

The research group of Prof. Piero Triverio at the University of Toronto is seeking candidates for a post-doctoral position in computational fluid dynamics applied to coronary artery disease. The position is for 1 year, with option to extend to a second year.

**Project rationale:** In Canada, about 1 person out of 7 dies because of coronary artery disease (CAD). Coronary arteries play a vital role, bringing oxygen-rich blood to the heart, but can become occluded. With graft surgery, new vessels are created to increase blood flow to the heart and prolong life. However, graft failure is quite common, and we still do not know exactly *why* grafts fail and, consequently, how to prevent their failure.

**Goal:** The project goal is to obtain new insight on the mechanisms responsible for graft failure, using computational fluid dynamics simulations guided by the latest advancements in medical imaging. Simulations will be performed on a cohort of patients who had CAD surgery. Results will be correlated with patient outcomes one year after surgery. The project is in collaboration with a cardiovascular radiologist and a cardiovascular surgeon at the Sunnybrook Health Sciences Centre in Toronto, and with the International School for Advanced Studies (Trieste, Italy).

**Required qualifications:** Ph.D. in engineering, applied mathematics or a field closely related to the project. Experience with computational fluid dynamics.

**Desired qualifications:** Experience with high-performance computing, medical imaging, cardiovascular simulations.

**Institution and environment:** The University of Toronto consistently ranks first in Canada and among the top universities in the world. Conveniently located in downtown Toronto, the university enjoys the lively and vibrant atmosphere of the city. With nearly all of the world's culture groups represented, and more than 100 languages spoken, Toronto is one of the most diverse and multicultural cities in the world.

**To apply:** Email your CV, statement of interest and transcripts to [piero.triverio@utoronto.ca](mailto:piero.triverio@utoronto.ca)

**Deadline for full consideration:** Applications received by June 7th, 2017 will be given full consideration. Applications are welcome also after the deadline.

**Contact:** Piero Triverio, Assistant Professor and Canada Research Chair

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