

Department of Mathematics
University of Houston
Scientific Computing Seminar

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**Patient-specific CFD of aortic haemodynamics:
Bringing cardiovascular virtual reality
to clinical bedside practice**

Thursday, May 18, 2017
1:30 PM- 2:30 PM
Room 646 PGH

Abstract: Computational tools such as structural finite element analysis and computational fluid dynamics have been applied to answer medical questions in the last 30 years. With the advances in computational power and the continuous ageing of world's population, these techniques are currently moving from a proof-of-concept stage to a decision making tool in the bedside. iCardioCloud is a project at University of Pavia which aims at building a database of CFD simulations of patients with thoracic aortic disease in order to see the trends of aortic pathologies. We will discuss the potentialities and limitations of this framework as well as analyse some particular case studies in which the surgeon made his decision based on computational tools.