Mathematical modelling and computational analysis of fuel cells

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The Math Modelling and Scientific Computation (MMSC) group of the MITACS NCE has an ongoing research collaboration with Ballard Powersystems, the world leader in hydrogen fuel cell design. This is one of several new initiatives in Western Canada in "Industrial Mathematics". I will outline our experience with industrial mathematics in general and then discuss two scientific problems in particular: rivulet flow (an MSc thesis problem) and condensation front modelling (a bigger problem involving a number of people).