



*The BRACE CENTRE FOR WATER RESOURCES MANAGEMENT*

## **Dr. Sara Hashmi**

Postdoctoral Fellow  
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### **REMEDIATION OF OIL VIA POLYMERIC DISPERSANTS**

The inherent instability of colloidal particles in non-polar media presents some unique challenges to oil remediation and environmental clean-up operations. In the Deep Water Horizon event of 2010, hydrate aggregation caused problems during several attempts at capping the blown well. Work in our lab has shown that polymeric dispersants can inhibit the aggregation of hydrates in water-in-oil emulsions. Dispersants also have implications in the stability of asphaltenes, which in turn can play an important role in stabilizing emulsions. We will discuss the micro-scale mechanisms of stability provided by polymeric dispersants in these systems, with an eye toward environmental applications.

Dr. Hashmi earned her Bachelor's degree in Physics and Philosophy from Harvard University in 2001. She then spent a year in the Soft Matter Lab of Dave Weitz, also at Harvard, where she was introduced to interdisciplinary approaches across the lines of physics, chemistry, biology, materials science and engineering. She received the Ph.D. degree in Chemical Engineering at Yale University in 2008. Her research applies materials science principles to problems in petroleum systems and colloids in porous media, with environmental and industrial applications.

**Friday, January 21<sup>st</sup>, 2011**

McGill Downtown Campus, Macdonald Engineering Building, Room MD497  
11:30 am - 12:30 pm

**EVERYONE WELCOME**