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**Speaker:** Ricardo Mendes  
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Thursday, February 9, 2012  
2:00 PM  
125 Hayes-Healy Hall

**Title:** Lifting tensors from orbifold quotients

**Abstract:**

Let  $M$  be a Riemannian manifold on which a compact Lie group  $G$  acts by isometries, and assume the quotient  $M/G$  is isometric to an orbifold. P. Michor (1997) has shown that every smooth alternating  $k$ -form on  $M/G$  is induced by some  $G$ -invariant form on  $M$ . His proof relies on a theorem by L. Solomon (1963) about alternating  $k$ -forms invariant under a Euclidean finite reflection group. In this talk I will describe the analogues for symmetric 2-tensors (and in particular metrics) of both Solomon's and Michor's theorems. These are the main results in my thesis (2011).