## On some variational problems involving capacity, torsional rigidity, perimeter and measure

Michiel van den Berg

University of Bristol

We investigate the existence of a maximiser among open, bounded, convex sets in Euclidean space in three or more dimensions, for the product of torsional rigidity and Newtonian capacity, with constraints involving Lebesgue measure or a combination of Lebesgue measure and perimeter. Joint work with Andrea Malchiodi.