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Ailana Fraser* (afraser@math.ubc.ca), Department of Mathematics, University of British Columbia. *Morse index and uniqueness results for free boundary minimal surfaces.*

I will discuss joint work with R. Schoen on Morse index and uniqueness results for free boundary minimal surfaces in a Euclidean ball. These are proper branched minimal immersions of a surface into the ball which meet the boundary orthogonally. Such surfaces have been extensively studied and they arise as extremals of the area functional for relative cycles in the ball. They also arise as extremals of a certain eigenvalue problem. (Received August 29, 2014)