Rui Loja Fernandes* (ruiloja@illinois.edu), Department of Mathematics, University of Illinois at Urbana-Champaign, 1409 W. Green Street, Urbana, IL 61801. Riemannian submersions between Riemmanian Lie groupoids.

I will survey recent joint work with Matias del Hoyo (IMPA) on Riemannian submersions between Riemannian Lie groupoids. One highlight is a linearization result for split fibrations that can be used to obtain an Ehresmann Theorem for Lie groupoids. From it we deduce rigidity of deformations of compact Lie groupoids. (Received August 18, 2015)