Geometry, Groups and Dynamics/GEAR Seminar (held at the Illinois hub of GEAR)

1:00 pm, Thursday, September 24, 2015 in Altgeld Hall, 243 Altgeld Hall

Rui Loja Fernandes (Illinois)

Poisson manifolds of compact types

Abstract: In this talk I will describe a class of Poisson manifolds which play the role of "compact objects" in Poisson geometry. These Poisson structures of compact type are very rigid compared to general Poisson structures: the symplectic foliation has a transverse integral affine structure, its leaf space is an orbifold with a Duistermaat-Eckman type measure, and they have an associated symplectic gerbe, that obstructs realizing them as isotropic quotients of a symplectic manifold. In this talk I will carefully define these objects and give a small tour of their rich geometry. Joint work with M. Crainic (Utrecht) and D. Martinez-Torres (PUC-Rio de Janeiro).

Video