

## *Dirac structures, Lie algebroids and Dorfman connections*

### Abstract:

I will explain the notion of Dirac structure and how Dirac manifolds generalize simultaneously presymplectic, Poisson and foliated manifolds.

The infinitesimal objects associated to Poisson groupoids, presymplectic groupoids, and foliated groupoids are of different flavor, but all three structures are instances of Dirac groupoids, i.e. Lie groupoids endowed with Dirac structures that are compatible with the multiplication.

The infinitesimal objects associated to Dirac groupoids are connection-like maps that I call Dorfman connections. I will define them and show that they appear in several natural situations.