Genet-Roussel Seminar

Alejandro Cabrera (UFRJ)

Topological Field Theories, reduction by symmetries and star-products

08/04/2013 at 13h00, sala 4-002 (ICMC-USP)

Abstract: The perturbative quantization of a particular topological field theory (TFT), called the Poisson sigma model, yields a way of producing a star-product out of a Poisson manifold (M,π). We discuss a general 'gauging' procedure to encode geometric reduction data (eg: Lie group symmetries for (M,π)) into Topological Field Theories and argue that the gauged TFT thus constructed is equivalent to the sigma model corresponding to the reduced geometry. This is joint work with F. Bonechi and M. Zabzine. We then elaborate on the application to quantization of Poisson quotients by moment map reduction.

All Genet-Roussel Seminar material (video lectures, lecture notes, upcoming talks, etc.) is available at http://www.icmc.usp.br/~grossi