Weekend(oïd) Géométrie de Poisson

Toulouse, 2-3 Mars, 2007 — Université Paul Sabatier

Programme

Un colloque Montpellier-Toulouse

Programme

Vendredi matin : Amphi Schwartz
Vendredi après-midi et Samedi : Salle 207

Vendredi 2 Mars

10 : 15 – 11 : 15 Marius Crainic

11 : 30 – 12 : 30 Camille Laurent-Gengoux, *From symplectic groupoid to symplectic desingularizations*

12 : 30 – 14 : 15 Pause déjeuner

14 : 15 – 15 : 15 Marco Zambon, *Reduction of branes in generalized complex geometry*

15 : 30 – 16 : 30 Aïssa Wade, *Deformations of transverse generalized complex structures*

16 : 30 – 17 : 00 Pique-nique (pas de cafe à cause d'une coupure d'eau dans le bâtiment de maths mais il y aura des gateaux)

17 : 00 – 18 : 00 Gilles Halbout, *Quantization of Poisson Hopf stacks*

20 : 30 Dîner au "Le Chateaubriand" (42, Rue pargamineres).

Samedi 3 Mars :

10 : 15 – 11 : 15 Paul-Emile Paradan, *Symplectic cutting via the compactifications of Concini-Procesi*

11 : 30 – 12 : 30 Rui Loja Fernandes, *Poisson actions*

Aprs-midi : Balade Albi

ABSTRACTS

Marius Crainic

TBA

Universiteït Utrecht

Camille Laurent-Gengoux

From symplectic groupoid to symplectic desingularizations

Université de Poitiers

We use the symplectic groupoids to lift singularities of some classes of singular symplectic varieties. We characterize desingularizations therefore obtained.

Marco Zambon

Reduction of branes in generalized complex geometry

Universität Zürich

We show that a generalized complex submanifold ("brane") of a generalized complex manifold is endowed with a natural foliation and that the quotient, when smooth, is again a generalized complex manifold. This can be seen as a generalized complex analog of quotienting a coisotropic submanifold in symplectic geometry. Along the way we will consider exact Courant algebroids as well.

Aïssa Wade

Deformations of transverse generalized complex structures

Penn State University

We will discuss deformations of transversely holomorphic foliations from the point of view of generalized complex manifolds.

Gilles Halbout

Quantization of Poisson Hopf stacks

Université de Montpellier II

Let G be a Poisson Lie group and g its Lie bialgebra. Suppose that g is a Group Lie bialgebra, that is to say that there is an action of a discrete group on G deforming the Poison structure into coboundary equivalent ones. We prove that this imply the existence of a non trivial Hopf-Poisson stack, corresponding to function on the formal Poisson dual group. Furthermore we prove existence of a deformation quantization of this non trivial stack.

Paul-Emile Paradan

Symplectic cutting via the compactifications of Concini-Procesi

Université de Montpellier II

The construction called "symplectic cutting" was initiated by E. lerman in the case of an Hamiltonian action of the circle group. Later, Woodward and Meinrenken extend this procedure for non-abelian compact group actions. We propose here a new method to perform "symplectic cutting" by using the compactifications of Concini-Procesi.

Rui Loja Fernandes

Poisson actions

Instituto Superior Técnico

Poisson actions often do not have moment maps (e.g., if the group acts along directions transverse to the symplectic leaves). In this talk I will give an overview on an approach to Poisson actions and reduction through symplectic groupoids, which does not require the presence of a moment map. This is joint work with Juan Pablo Ortega and Tudor Ratiu.
