

Singularity Theory Session

Organizers :

- Nicolas Dutertre (Université d'Angers, France)
- Nivaldo G. Grulha Jr. (Universidade de São Paulo, São Carlos, Brasil)

Presentation

Singularity Theory has applications in several fields of science and has interactions with many areas of mathematics such as algebraic geometry, differential geometry, qualitative theory of ordinary differential equations. It also has applications in node theory, optics, robotics, computer vision theory.

France played a key role in the development of the of singularity theory, notably thanks to the pioneering work of René Thom in the 1960s. This development continued in the 70s and 80s under the influence of major singularists such as B. Teissier, Lê Dung Trang, J.-P. Brasselet or D. Trotman. Singularity theory remains an active research topic in France, represented in several universities : Aix-Marseille, Angers, Chambéry, Lille, Nice, Paris, Rennes, Toulouse.

The link between Brazil and France in singularity theory is very strong. In Brazil, the subject began to arouse the interest of mathematicians since the 1960s. The research in singularity theory began there with Professor Gilberto Loibel. He founded the group of singularities of the USP-São Carlos, which is today one of the largest groups of this theme and develops research on various topics of the theory of singularities. Since its creation, this group has been strongly involved in the training of new researchers and teacher-researchers as well as in international exchanges. It has grown and spread, generating other groups that are developing today throughout Brazil : UFPb, UFSCar, UNESP-SJRP, UEM, UFU, among others.

The interaction between French and Brazilian singularists is remarkable. In addition to scientific collaboration, resulting in numerous articles published jointly, there are numerous exchanges involving doctoral and post-doctoral students and intense and fruitful scientific visits in both directions.

Confirmed speakers

Researchers from French institutions

- Jean-Paul Brasselet (CNRS - Aix-Marseille Université) ;
- Mihai Tibar (Université de Lille I) ;
- David Trotman (Aix-Marseille Université) ;

Researchers from Brazilian institutions

- Thaís Dalbelo (UFSCar) ;
- Luis Renato Dias (UFU) ;
- Vincent Grandjean (UFC) ;
- Maria Aparecida Soares Ruas (USP, São Carlos).