

CURRICULUM VITAE

Céline Roucairol

Born on November 27, 1977 in Angers, France

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Present position

Postdoc at the university of Mannheim (Germany).

Education

2000-2004 PhD Thesis prepared under the supervision of Professor M. Granger
(Angers)

Title : *L'irrégularité du complexe $f_+(\mathcal{O}_{\mathbb{C}^n e^g})$.*

Thesis defended on June 25, 2004. Jury : A. Dimca (Bordeaux), E. Delabaere (Angers), Ph. Maisonobe (Nice), A. Parusinski (Angers), C. Sabbah (Ecole polytechnique).

Thesis available on the web site:

http://tel.ccsd.cnrs.fr/documents/archives0/00/00/68/04/index_fr.html

- 2003-2004: A.T.E.R. at the university of Angers (France).
- 2001-2002: Teacher ordinary course at the university of Angers (France).
- 2000-2001: National competitive teaching examination in Mathematics (Rank : 213).

1999-2000 Post graduate Degree (with first honors) - Universities of Angers and Nantes
Master thesis prepared under the supervision of Professor M. Granger (Angers)

Title : *Régularité de la connexion de Gauss-Manin d'une hypersurface à singularité isolée.*

Master thesis available on the web site: <http://math.univ-angers.fr/roucairol/milnor2.ps>

1998-1999 Master Degree (with class honors) - University of Angers

1995-1998 Bachelor Degree (with first honors) - University of Angers

Research Interests

Singularities, \mathcal{D} -modules, Gauss-Manin system.

Key words : irregularity complexes, direct image of \mathcal{D} -modules, formal structure of \mathcal{D} -modules.

Preprint

- *The formal structure of the direct image of some D -modules*, Mars 2006, 20 pages.

Publication

- *The irregularity of the direct image of some \mathcal{D} -modules*, publication R.I.M.S, Kyoto University, September 2005, 10 pages, to be appear.
- *Irregularity of an analogue of the Gauss-Manin systems*, Bulletin de la SMF, January 2006, 18 pages, to be appear.

Talks

- Dec. 2005: *Application of the specialization to the study of the formal decomposition of a \mathcal{D} -module*, Mannheim, (Germany).
- Oct. 2005: *Steepest descent along Lefschetz Thimbles with views on Gauss-Manin (By F. Pham)*, Mannheim, (Germany).
- Feb. 2005: *Irregularity of a differential system associated with two polynomial maps*, workshop "Young singularists" at the C.I.R.M., Marseille-Luminy, (France).
- Feb. 2005: *Irregularity of an analogue of the Gauss-Manin systems*, Mannheim, (Germany).
- Oct. 2004: *Irregularity of an analogue of the Gauss-Manin systems*, Nice (France).
- Jun. 2004: *Irregularity of a differential system associated with two polynomial maps*, Bordeaux (France).
- May 2004: *Introduction to \mathcal{D} -modules*, doctoral meeting 2004, Piriac-sur-Mer (France).
- Mar. 2004: *Irregular analogues of the Gauss-Manin connection*, Nantes (France).
- Feb. 2004: *Irregularity of a differential system associated with two polynomial maps*, Angers.
- Mar.2003: *Brieskorn lattice and spectral numbers*, young researchers seminar at Angers.
- Jun. 2002: *Introduction to the Gauss-Manin connection*, doctoral meeting 2002, Dinard (France).
- Nov.2001: *Toric varieties and toric blow-up*, young researchers seminar at Angers.
- Jan. 2001: *Classification of holonomic D -modules with regular singularity*, Angers.
- Dec. 2000: *Local classification of D -modules whose characteristic variety is T_Y^*X , with Y subvariety of X* , Angers.
- Oct 2000: *Koszul complexes*, Angers (France).

Conference attended

- Oct. 2002: Summer school "Differential Modules", Kaiserslautern (Germany).
- Jun. 2004: Conference on Thom's works and singularities theory, Nantes (France).
- 24-28 Jan. 2005: School "Introduction to Singularities theories", C.I.R.M. of Marseille-Luminy, (France).
- 14-18 Feb. 2005: workshop "Young singularists", C.I.R.M. of Marseille-Luminy, (France).
- 28 Fév.-4 Mar. 2005: Meeting "metrical aspects of singularities", C.I.R.M. of Marseille-Luminy, (France).

Conference expected

- 20-24 Mar. 2006: Aspects algébriques des singularités, C.I.R.M. of Marseille-Luminy, (France).
- 01-05 Apr. 2006: 25th Anniversary of MPIM, MPIM Bonn (Germany).

Teaching

2004-2005 A.T.E.R. at the University of Nice, 96 hours teaching ordinary course in Statistics (first year of Bachelor), in differential calculus (third year of Bachelor) and in linear algebra (second year of Bachelor).

2003-2004 A.T.E.R. at the University of Angers, 96 hours teaching ordinary course in Algebra and Analysis (first and second years of Bachelor).

2001-2002 Over 40 hours teaching ordinary course in analysis (first year of Bachelor).

2000-2001 National competitive teaching examination in Mathematics (Rank : 213).

1998-1999 Tutor in Mathematics at the University of Angers.

Others

- Foreign Languages: French (mother tongue), English (good).
- I am learning German.
- Organizer of the doctoral meeting 2003 at Blaison-Gohier (France).
Web site: <http://math.univ-angers.fr/~roucairo/rendoc/rendoc.html>