

François LABOURIE,  
born December 15, 1960, in Rouen (France)  
Professeur de classe exceptionnelle à l'Université Paris 11

## CURRICULUM VITAE

### PROFESSIONAL EXPERIENCE

- 1994-2013** – Full Professor at Paris-Sud University since September 1994: “première classe” since September 1996, “classe exceptionnelle” since September 2003
- 1986-1994** – C.N.R.S. Research Fellow at the Mathematics Department of Ecole Polytechnique and Assistant Professor at Ecole Polytechnique in 1991-2001

### EDUCATION

- 1993** – “Habilitation de mathématiques” à l'Université Paris-Sud, examiners: Jean-Pierre Bourguignon, Misha Gromov, André Haefliger, Pierre-Louis Lions, Pierre Pansu, Dennis Sullivan; referees: Albert Fathi, Robert Zimmer
- 1987** – Ph. D in mathematics (advisor M. Gromov) on the “*Géométrie et topologie des surfaces localement convexes*” at Université Paris 7, examiners: Daniel Bennequin, Marcel Berger, Haïm Brézis, Jean-Pierre Bourguignon, Misha Gromov.
- 1977-1985** – Graduate: Ecole Normale Supérieure (1980-1985),  
– Undergraduate: “Classes préparatoires au Lycée Corneille à Rouen”

### AWARDS AND DISTINCTIONS

- 1992** : Prize of the first European congress in Mathematics.  
**1993** : Carrière Prize from the French Academy of Sciences.  
**1997** : Junior member of the Institut Universitaire de France.  
**1998** : Invited Lecture in Berlin ICM.  
**2007** : Invited Plenary Lecture in the Deutsche Mathematiker-Vereinigung.  
**2009** : ERC Advanced Grant *Higher Teichmüller Theory* 1 500 000 euros.

## SERVICE TO MATHEMATICS

- *Université Paris 11*
  - Member of the Steering Committee of “Fondation Mathématique Jacques Hadamard” 2010-
  - Chair of the Math department 2004-2007,
  - Cochair in charge of research 2001-2004,
  - Cochair in charge of hiring 2001-2004,
- *Member of editorial boards*
  - *Inventiones Mathematicae* 2008-
  - *Geometriae Dedicata* 2002-2008
  - *Bulletin de la SMF* 1992-1997
- *Other*
  - Member of the Scientific Board of the IHP (Institut Henri Poincaré) 2006-2011
  - Member of the Geometry Panel of the ICM, Madrid 2006
  - ANR Grant “RepSurf” main investigator.
  - ANR Grant “ETTT” co-investigator.
  - Member of hiring committees: École Polytechnique, ETH Zürich, Nantes.
  - Organiser of the conference “*representations of surface groups*”, CIRM, September 2008.
  - Organiser of the conference “*geometric structures in low dimensions*”, Autrans, January 2010.
  - Co-organiser of the conference “*analysis and geometry on surfaces*”, Autrans, March 2011.
  - Co-organiser of the conference “*ergodic geometry*”, Orsay, May 2011.
  - Co-organiser of the conference “*Surface group representations*”, IHP-Paris, January 2012.
  - Co-organiser of the conference “*Surface group representations*”, IHP-Paris, April 2012.
  - Co-organiser of the conference “*Kerckhoff 60*”, Luminy, May 2012.
  - Co-organiser of the conference “*Higher Teichmüller-Thurston conference*”, Montreal, October 2012.
  - Organiser of the conference “*Bismutfest*”, Orsay, May 2013.
  - Co-organiser of the program “*The geometry, topology and physics of moduli spaces of Higgs bundles*”, Singapore, Summer 2014
  - Co-organiser of the MSRI semester “*Geometry and Dynamics of Moduli Spaces*”, Berkeley, Spring 2015.

## DOCTORAL STUDENTS

- Jean-Marc Schlenker : *Isometric immersions of surfaces* - 1994

- Benoit Rivet : *Foliated harmonic Maps* - 1998
- Graham Smith : *Submanifolds and elliptic Problems* - 2004
- Duc-Manh Nguyen: *Flat surfaces with singularities* - 2008
- Sun Zhe: *Real projective structures* - (presently)
- Sourav Ghosh: *Margulis Space-times* - (presently)

#### INVITED LECTURES SINCE 2003

- *Lectures in Summer Schools since 2003*
  - (1) Strasbourg 2005.
  - (2) Beida University, Pekin 2006.
  - (3) ETH-Zürich 2006.
  - (4) TIFR, Bombay 2007.
  - (5) Jerusalem 2008.
  - (6) Luminy 2008.
  - (7) Kyoto 2008.
  - (8) Ann Arbor 2011
- *Main international invited lectures since 2003*

**Oxford**, 2 - 6/03/2003 **ETH-Zürich**, 9 - 13/05/2003 **Max-Planck-München**, 28/06 - 4/07/2003 **Stanford**, 5 - 10/08/2003 **Berkeley**, 10 - 22/08/2003 **Lisbonne**, 12 - 15/09/2003 **CRM-Montréal**, 2 - 10/01/2004 **Université de Grenade**, 31/01 - 4/02/2004 **ETH-Zürich**, 13 - 17/03/2004 **Beida-Pekin**, 20/07 - 21/08/2004 **Centro Ennio di Giorgi-Pise**, 23 - 29/10/2004 **Banff**, 6 - 11/12/2004 **Stanford**, 26/03 - 1/04/2005 **Madrid**, 22 - 29/04/2005 **Palerme**, 2 - 9/07/2005 **TIFR-Bombay**, 31/07 - 21/08/2005 **Centro Ennio di Giorgi-Pise**, 1 - 9/09/2005 **Princeton University**, 10 - 18/11/2005 **Yale University**, 25/05 - 2/06/2006 **AIM-Palo Alto**, 25/05 - 2/06/2006 **IMPA, Rio de Janeiro**, 30/07 - 21/08/2006 **Madrid**, 3 - 8/09/2006 **DMV-Bonn**, 20 - 22/09/2006 **Hebrew University**, 14 - 20/10/2006 **ETH-Zürich**, 27/10 - 27/12/2006 **AIM-Palo Alto**, 16 - 24/03/2007 **OSU-Columbus Ohio**, 15-22/04/2007 **Oberwolfach**, 1 - 6/07/2007 **Maryland University**, 1 - 20/08/2007 **MSRI-Berkeley**, 9 - 17/11/2007 **Princeton University**, 15 - 10/22/2008 **Hebrew University**, 9 - 16/05/2008 **Kyoto**, 2-9/07/2008 **TIFR-Bombay**, 10-20/08/2008 **Princeton University**, 22-29/11/2008 **Maryland University**, 2-9/12/2008 **University of Cork**, 8-10/05/2009 **Hebrew University**, 11 - 15/05/2009 **FRG-Park City-Utah**, 1 - 10/08/2009 **Maryland University**, 29/01 - 07/02/2009 **OSU-Columbus Ohio**, 15-22/04/2010 **Bangalore**, 02-08/08/2010 **Singapore**, 08-14/08/2010 **Sherbrooke**, 01-08/09/2010 **New Orleans**, 06-09/01/2011 **Oxford**, 14-18/03/2011 **Princeton**, 4-10/07/2011 **Maryland**, 14-15/08/2011 **Princeton**, 15-17/08/2011

**Dublin**, 29/08-2/09/2011 **Singapore**, 22/10-30/10/2011 **Bonn**,  
 19/12-23/12/2011 **UIC-Champaign** 5/8-8/8/2012 **Heidelberg**,  
 24/09-28/09/2011

#### PUBLICATIONS

- *Coauthors* : Y. Benoist, J.-M Bismut, M. Bridgeman, M. Burger, D. Canary, T. Delzant, R. Feres, P. Foulon, W. Goldman, O. Guichard, A. Iozzi, G. Margulis, G. McShane, S.Mozes, A. Sambarino, J.-M. Schlenker, A. Wienhard, R.Zimmer.
- *Publications*: [2] [3] [4] [5] [6] [7] [8] [9] [10] [11] [12] [13] [14] [15] [16] [17] [18] [19] [20] [21] [22] [23] [24] [25] [26] [27] [28] [29] [30] [31] [32]
- *Survey articles*: [33] [34] [35] [36] [37] [38] [39]
- *Book*: [1]

#### REFERENCES

- [1] François Labourie Representations of surface groups. *Birkhäuser: ETHZ lectures (To appear)*.
- [2] William M Goldman and François Labourie. Geodesics in Margulis Space-times. *Erg. Theory and Dyn. Syst.* 32 , no. 2, 643–651, 2012.
- [3] François Labourie. An algebra of observables for cross ratios. *C. R. Math. Acad. Sci. Paris 348* , no. 9-10, 503–507. 2010.
- [4] François Labourie and Gregory McShane. Cross ratios and identities for higher Teichmüller-Thurston theory. *Duke Math. J.*, 148(9):279–345, Nov 2009.
- [5] William M Goldman, François Labourie, and Gregory A A Margulis. Proper affine actions and geodesic flows for hyperbolic surfaces. *Annals of Maths*, 170(3):1051–1083, 2009.
- [6] François Labourie. Cross ratios, Anosov representations and the energy functional on Teichmüller space. *Ann. Sci. Ecole Norm. Sup. (4)*, pages 1—38, 2008.
- [7] Thomas Delzant, Olivier Guichard, François Labourie, and Shahar Mozes. Well displacing representations and orbit maps. Preprint, 2007.
- [8] François Labourie. Cross ratios, surface groups,  $\mathrm{PSL}(n, \mathbf{R})$  and diffeomorphisms of the circle. *Publ. Math. IHES*, (106):139–213, 2007.
- [9] François Labourie. Flat projective structures on surfaces and cubic holomorphic differentials. *Pure Appl. Math. Q.*, 3(4):1057—1099, 2007.
- [10] François Labourie. Anosov flows, surface groups and curves in projective space. *Invent. Math.*, 165(1):51–114, 2006.
- [11] Marc Burger, Alessandra Iozzi, François Labourie, and Anna Wienhard. Maximal representations of surface groups: symplectic Anosov structures. *Pure Appl. Math. Q.*, 1(3):543–590, 2005.
- [12] François Labourie. Random  $k$ -surfaces. *Ann. of Math. (2)*, 161(1):105–140, 2005.
- [13] François Labourie. Fuchsian affine actions of surface groups. *J. Differential Geom.*, 59(1):15–31, 2001.
- [14] François Labourie. Un lemme de Morse pour les surfaces convexes. *Invent. Math.*, 141(2):239–297, 2000.
- [15] Jean-Michel Bismut and François Labourie. Symplectic geometry and the Verlinde formulas. In *Surveys in Differential Geometry*, volume V, pages 97–311. 1999.
- [16] Renato Feres and François Labourie. Topological superrigidity and Anosov actions of lattices. *Ann. Sci. Ecole Norm. Sup. (4)*, 31(5):599–629, 1998.

- [17] François Labourie and Jean-Marc Schlenker. Surfaces convexes fuchsienues dans les espaces lorentziens à courbure constante. *Math. Ann.*, 316(3):465–483, 2000.
- [18] François Labourie. Problèmes de Monge-Ampère, courbes holomorphes et laminations. *Geom. Funct. Anal.*, 7(3):496–534, 1997.
- [19] François Labourie and Robert J Zimmer. On the non-existence of cocompact lattices for  $SL(n)/SL(m)$ . *Math. Res. Lett.*, 2(1):75–77, 1995.
- [20] François Labourie, Shahar Mozes, and Robert J Zimmer. On manifolds locally modelled on non-riemannian homogeneous spaces. *Geom. Funct. Anal.*, 5(6):955–965, 1995.
- [21] Yves Benoist and François Labourie. Sur les difféomorphismes d’Anosov affines à feuilletages stable et instable différentiables. *Invent. Math.*, 111(2):285–308, 1993.
- [22] Patrick Foulon and François Labourie. Sur les variétés compactes asymptotiquement harmoniques. *Invent. Math.*, 109(1):97–111, 1992.
- [23] Yves Benoist and François Labourie. Sur les espaces homogènes modèles de variétés compactes. *Publ. Math. IHES*, (76):99–109, 1992.
- [24] François Labourie. Métriques prescrites sur le bord des variétés hyperboliques de dimension 3. *J. Differential Geom.*, 35(3):609–626, 1992.
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- [26] François Labourie. Surfaces convexes dans l’espace hyperbolique et  $\mathbb{C}P^1$ -structures. *J. London Math. Soc. (2)*, 45(3):549–565, 1992.
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- [29] François Labourie. Immersions isométriques elliptiques et courbes pseudo-holomorphes. *J. Differential Geom.*, 30(2):395–424, 1989.
- [30] François Labourie. Problème de Minkowski dans les variétés hyperboliques et courbes pseudo-holomorphes. *Rend. Sem. Mat. Univ. Politec. Torino*, (Special Issue):63–76 (1990), 1989.
- [31] François Labourie. Une relation entre diamètre extrinsèque, intégrale de la courbure de Gauss et inradius pour les hypersurfaces localement convexes d’un espace euclidien. *Math. Z.*, 197(4):551–559, 1988.
- [32] François Labourie. Limite d’hypersurfaces localement convexes. *Invent. Math.*, 90(1):115–138, 1987.
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- [34] Lars Andersson, Thierry Barbot, Riccardo Benedetti, Francesco Bonsante, William M Goldman, François Labourie, Kevin P Scannell, and Jean-Marc Schlenker. Notes on: “Lorentz spacetimes of constant curvature” by G. Mess. *Geom. Dedicata*, 126:47–70, 2007.
- [35] François Labourie. The phase space of  $k$ -surfaces. In *Rigidity in dynamics and geometry (Cambridge, 2000)*, pages 295–307. Springer, 2002.
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- [39] François Labourie. Exemples de courbes pseudo-holomorphes en géométrie riemannienne. In M. Audin, editor, *Pseudo-holomorphic curves in symplectic geometry*, volume 117, pages 251–269. Progress in Maths (Birkhäuser), 1994.