

# François Dahmani

Professeur des Universités  
Fellow of the Institut Universitaire de France

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Institut Fourier, 100 Rue des Maths  
University Grenoble Alpes  
F-38 058 Grenoble, cedex 9 (France)

Dr. Hab. in Mathematics (2003, 2009)

ENS (Cachan, 1997)

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## PROFESSIONAL RECORD AND AWARDS

2003 — PhD in Mathematics (Univ. Strasbourg), award winning (*Prix Raymond Poincaré*).  
2003 — Post-doctorate, ETH Zürich.  
2004 — Maître de Conférences, University of Toulouse.  
2010 — Professor, University of Grenoble  
2013 — Junior Fellow of the *Institut Universitaire de France*.

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## SERVICES (AFTER 2010)

2014 → 2016 — Scientific committee in Institut Fourier  
2011 → 2019 — UFR Committee of Univ. Grenoble. (elected)  
2012 → 2018 — Head of the Master Degree in Pure Math, and in Math and Applications in Grenoble.  
2019 → 2022 — Head of the University School of Mathematics in Grenoble.

### Regularly

Referee for diverse scientific funding program (France, Switzerland, Belgium, USA, Israel).

Referee for diverse math journals.      Diverse teaching and organisational duties.

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## TEACHING

Mathematics, all levels. Dedicated page: <https://www-fourier.ujf-grenoble.fr/~dahmani/enseignements.htm>

Places Univ. Strasbourg (2001-2003), Toulouse (2004-2010), Grenoble (2010 *et seq.*), Engineering school INSA Toulouse (2006-2008), ENS Lyon (2012-2015).

Recently Crypto M1, Groups and Topology L3-Magistere, Algebra L2, ENS-Lyon, M1. Regularly advising internships in all levels.

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## RESEARCH

Geometric group theory, geometry, topology, dynamics. Algorithmics in groups. Different hyperbolicities. Seminar participation and organisation (*e.g* Tripod), working seminar organisation and animation ("*Rigidity and harmonic functions*", "*Growth and Height*", "*Translations' surfaces*", "*Surface subgroups in groups*", *etc.*)

About 25 research papers published (see <https://www-fourier.ujf-grenoble.fr/~dahmani/preprints.html>). Advisor of two PhD thesis (2013, and in progress). Organiser of conferences (Toulouse 2008, Grenoble 2012, Grenoble 2016). Invited researcher (short terms) *e.g.* Univ. Chicago (2014), Hausdorff Inst., Bonn (2015), MSRI Berkeley (2016), Kyoto Univ. (2017), Tata Inst. (2018). Grants (PI): ANR funds (2006-10, 2012-15) and IUF (2013-18). Shortlisted, ranked "A" by the ERC 2015 (*but not funded*)

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## SELECTED RECENT PAPERS

- [10] with D. Groves, *The isomorphism problem for toral relatively hyperbolic groups*. Publ. Math., IHÉS. 107 (2008) 211-290.  
[16] with V. Guirardel, P. Przytycki, *Random groups do not split*. Math. Annalen. 349 (2011), 657-673.  
[17] with V. Guirardel, *The isomorphism problem for all hyperbolic groups*. GAFA 21 no.2 (2011) 223-300.  
[21] with V. Guirardel, D. Osin, *Hyperbolically embedded subgroups and rotating families*. Mem. of AMS, (2017) 145 pp.  
[23] with N. Touikan, *Isomorphisms using Dehn Fillings: the splitting case*. Invent. Math. (2019)  
[22] with V. Guirardel, *Recognising a relatively hyperbolic group by its Dehn fillings*. Duke Math J. (2018).  
[24] *On suspensions and conjugacy of hyperbolic automorphisms*. Trans. AMS (2016).  
[25] with C. Horbez, *Spectral theorems for random walks in Mapping Class Groups and  $\text{Out}(F_n)$* . IMRN (2017).  
[30] *The normal closure of big Dehn twists and plate spinning with rotating families* Geom. Top. (2018).

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## MISCELLANEOUS

Serving in Grenoble University Symphonic Orchestra (Viola).