François Dahmani

Professeur des Universités
Honorary Fellow of the Institut Universitaire de France

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Institut Fourier, 100 Rue des Maths
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Dr. Hab. in Mathematics (2003, 2009)
ENS (Cachan, 1997)
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PROFESSIONNAL RECORD AND AWARDS

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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 — *Distinguished, 2020*
2013 — Junior Fellow of the *Institut Universitaire de France.* (Benefits until 2018)

SERVICES (AFTER 2010)

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2014 → 2016 — Scientific commitee in Institut Fourier
2012 → 2018 — Head of the Master Degree in Pure Math, and in Math and Applications in Grenoble.
2019 → 2023 — Director of the University School of Mathematics, in Grenoble.
2021 → 2023 — Editor for *Bulletin et Mémoires de la Société Mathématique de France.*
2024 → 2027 — Director of the Doctoral School MSTII (math, computer science) in Grenoble.
2024 → 2027 — Editor in Chief for *Bulletin et Mémoires de la Société Mathématique de France.*
Regularly
   Referee for diverse scientific funding program (France, Switzerland, Belgium, USA, Israel).
   Referee for diverse math journals.   Diverse teaching and organisational duties.

TEACHING

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Mathematics, all levels, various topics, changing every 3 years. Various challenging aspects.

Places : Univ. Strasbourg (2001-2003), Toulouse (2004-2010), Engineering school INSA Toulouse (2006-2008), ENS Lyon (2012-2015, 2024), École Polytechnique (2022), Grenoble (UJF, then UGA) since 2010.

RESEARCH

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Geometric Group Theory, Geometry, Topology, Dynamics. Algorithmics in Groups.

About 40 research papers published, or submitted (see `https://www-fourier.ujf-grenoble.fr/~dahmani/preprints.html`).
Advisor of three PhD thesis (two more to start soon).
Organiser of various conferences,
Founder Organiser of the *Séminaire Virtuel Francophone Groupes et Géométries.* `https://www-fourier.univ-grenoble-alpes.fr/seminaire-gg/`
Organiser of the special trimester "Groups 2022" in Institut Henri Poincaré (IHP) Apr-Jul 2022.
Member of the GAGTA steering committee, `gagta.org`
Invited researcher *Univ. Chicago (2014), MSRI Berkeley (2016), Kyoto Univ. (2017), IHES (2022), CRM Montreal (2023).*
Grants (PI): *ANR funds (2006-10, 2012-15, 2023-28) and IUF (2013-18).*

SELECTED PAPERS

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[2] *Combination of convergence groups*, Geom & Top. (2003)
[10] avec D. Groves, *The isomorphism problem for toral relatively hyperbolic groups.* Publ. Math. IHÉS (2008)
[16] avec V. Guirardel, P. Przytycki, *Random groups do not split.* Math. Annalen. 349 (2011).
[17] with V. Guirardel, *The isomorphism problem for all hyperbolic groups.* GAFA 21 no.2 (2011).
[20] *On suspensions and conjugacy of hyperbolic automorphisms.* Trans. AMS (2016).
[21] with V. Guirardel D. Osin, *Hyperbolically embedded subgroups and rotating families.* MemAMS, 145pp (2017).
[23] with C. Horbez, *Spectral theorems for random walks in Mapping Class Groups and* Out*(F_n).* IMRN (2018).
[25] with V. Guirardel, *Recognising a relatively hyperbolic group by its Dehn fillings.* Duke Math J. (2018).
[29] *The normal closure of big Dehn twists and plate spinning with rotating families* Geom & Top. (2018).
[30] with N. Touikan, *Deciding isomorphy using Dehn Fillings: the splitting case.* Invent. Math. (2019).
[33] with R. Li, *Relative hyperbolicity for automorphisms of free products.* J. Top. Analysis, (2022)
[37] with Mahan Mj, *Class number for pseudo-Anosov* preprint (2022), 19 pp.
[39] with N. Touikan *Unipotent linear suspensions of free groups*, preprint (2023), 120 pp.
[40] with S. Krishna, J. P. Mutanguha, *hyperbolic hyperbolic-by-cyclic groups are cubulable*, à paraitre, Geom. Top (2024).
[41] with S. Francaviglia, A. Martino, N. Touikan, *The Conjugacy Problem in* Out(F_3). preprint (2023), 27 pp.

MISCELANEOUS

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Serving in Grenoble University Symphonic Orchestra (Viola).