Nicolas Monod — Curriculum Vitæ

PhD 2001, ETH Zurich

Positions Held

2014–	Director, Bernoulli Center
2008–	Full Professor, EPFL
2005–2008	Full Professor, University of Geneva
2004–2005	Assistant Professor, University of Chicago
2001–2004	L. E. Dickson Instructor, University of Chicago

Awards and Honors

2016 Gauss Lectureship
Fellow of the American Mathematical Society
ICM 2006 invited speaker
2015 Berwick Prize (joint with P.-E. Caprace)
ERC Advanced Investigator
American Mathematical Society Plenary speaker (Central Section Meeting)
Salomon Bochner Lectures in Mathematics at Rice University
ETH Medal and Prize for the doctoral dissertation
Various grants from NSF (US), SNSF (CH), Clay (US), EU, Rothschild Foundation

Academic Management

Director of the Bernoulli Center (since 2014)
President of the Swiss Mathematical Society (2014-2015)
Director of the research chair EGG at EPFL (since 2008)
President of the Evaluation Committee of the Faculty of Basic Sciences at EPFL (2010–2014)
Member of the EPFL-wide Tenure and Promotion Committee (since 2010)
Member of the EPFL math Hiring Committee (since 2010)
Member of the executive committee of the EPFL math institute (since 2017)
Member of the Council of EPFL teachers (since 2016)
Scientific Advisory Board of the Max-Planck Institut Bonn

Outreach

Outreach talks to the general public, repeated radio appearances, presentations for high school students, for mathematical olympiad teams, and for foreign visiting students
Student counselor for all study years in mathematics at EPFL (until 2016)
Editor for *L'Enseignement Mathématique*
Groups, Geometry and Dynamics
Journal of Topology and Analysis
Commentarii Mathematici Helvetici

Twelve Representative Publications

Groups of piecewise projective homeomorphisms
PNAS (2013)

Cantor systems, piecewise translations and simple amenable groups
Annals of Mathematics (2013, with Juschenko)

A fixed point theorem for L^1 spaces
Inventiones Math. (2012, with Bader and Gelander)

The norm of the Euler class
Math. Annalen (2012, with Bucher)

On the bounded cohomology of semi-simple groups, S-arithmetic groups and products
Crelle's Journal (J. R. Ang. Math.) (2010)

The Dixmier problem, lamplighters and Burnside groups
J. of Functional Analysis (2010, with Ozawa)

Isometry groups of non-positively curved spaces: structure theory, discrete subgroups
J. of Topology (2009, with Caprace)

Actions of product groups on manifolds
Duke Mathematical Journal (2009, with Furman)

Property (T) and rigidity for actions on Banach spaces
Acta Mathematica (2007, with Bader, Furman and Gelander)

Orbit equivalence rigidity and bounded cohomology
Annals of Mathematics (2006, with Shalom)

Superrigidity for irreducible lattices and geometric splitting
Journal of the AMS (2006)

Continuous bounded cohomology and applications to rigidity theory
GAFA (2002, with Burger)

Publication list

Self-representations of the Möbius group, (with P. Py),
(2018), preprint.

Asymptotics of Cheeger constants and unitarisability of groups, (with M. Gerasimova, D. Gruber and A. Thom),
(2018), preprint.

Kaleidoscopic groups: permutation groups constructed from dendrite homeomorphisms, (with B. Duchesne and P. Wesolek),
(2018), preprint.

Future directions in locally compact groups, (with P.-E. Caprace),
LMS Lect. Notes 447 (2018), 343–355.

The cup-product of Brooks quasimorphisms, (with M. Bucher),
Forum Math., in press.

Fixed points in convex cones,
Trans. AMS B N° 4 (2017), 68–93.

Structural properties of dendrite groups, (with B. Duchesne),
Trans. AMS, in press.

The bounded cohomology of SL_2 *over local fields and* S*-integers*, (with M. Bucher),
IMRN 2017.

Group actions on dendrites and curves, (with B. Duchesne),
An. Inst. Fourier, to appear.

Variation on a theme by Higman,
Exp. Math. 35 N° 2 (2017), 226–235.

Extreme points in non-positive curvature,
Studia Math. 234 N° 3 (2016), 265–270.

Fixed points for bounded orbits in Hilbert spaces, (with M. Gheysens),
Annales de l'ENS., to appear.

An indiscrete Bieberbach theorem: from amenable CAT(0) groups to Tits buildings, (with P.-E. Caprace),
J. École Polytechnique 2 (2015), 333–383.

Extensive amenability and an application to interval exchanges, (with M. de la Salle, K. Juschenko and N. Matte Bon),
Erg. Th. Dyn. Sys., to appear.

Equivariant measurable liftings,
Fund. Math. 230 N° 2 (2015), 149–165.

Relative amenability, (with P.-E. Caprace),
Groups Geom. Dyn. 8 N° 3 (2014), 747–774.

Groups of piecewise projective homeomorphisms,
PNAS 110 N° 12 (2013), 4524–4527.

Non-supramenable groups acting on locally compact spaces, (with J. Kellerhals and M. Rørdam),
Doc. Math. 18 (2013), 1597–1626.

An obstruction to ℓ^p-dimension, (with H. Petersen),
Annales Inst. Fourier 64 N° 4 (2014), 1363–1371.

Cantor systems, piecewise translations and simple amenable groups, (with K. Juschenko),
Annals of Mathematics 178 N° 2 (2013), 775–787.

Normal generation of locally compact groups, (with A. Eisenmann),
Bull. London Math. Soc. 45 N° 4 (2013), 734–738.

Fixed points and amenability in non-positive curvature, (with P.-E. Caprace),
Math. Annalen 356 N° 4 (2013), 1303–1337.

Amenable hyperbolic groups, (with P.-E. Caprace, Y. de Cornulier and R. Tessera),
JEMS (J. Eur. Math. Soc.) 17 N° 11 (2015), 2903–2947.

An exotic deformation of the hyperbolic space, (with P. Py),
American J. of Math. 136 N° 5 (2014), 1249–1299.

On the topological full group of a minimal Cantor $\mathbf{Z}^2$-system, (with G. Elek),
Proc. AMS 141 N° 10 (2013), 3549–3552.

Is an irng singly generated as an ideal? (with N. Ozawa and A. Thom),
Int. J. Algebra Comp. 22 N° 4 (2012).

A fixed point theorem for L^1 spaces, (with U. Bader and T. Gelander),
Inventiones Math. 189 N° 1 (2012), 143–148.

The norm of the Euler class, (with M. Bucher),
Math. Annalen 353 N° 2 (2012), 523–544.

A lattice in more than two Kac–Moody groups is arithmetic, (with P.-E. Caprace),
Israel J. of Math. 190 N° 1 (2012), 413–444.

Decomposing locally compact groups into simple pieces, (with P.-E. Caprace),
Cambridge Phil. Soc. 150 (2011), 97–128.

A note on topological amenability
IMRN 2011:17 (2011), 3872–3884.

On the bounded cohomology of semi-simple groups, S-arithmetic groups and products
Crelle's Journal (J. R. Ang. Math.) 640 (2010), 167–202.

The Dixmier problem, lamplighters and Burnside groups, (with N. Ozawa),
Journal of Functional Analysis 258 N° 1 (2010), 255–259.

Non-unitarisable representations and random forests, (with I. Epstein),
IMRN (2009), 4336–4353.

Isometry groups of non-positively curved spaces: structure theory, (with P.-E. Caprace),
Journal of Topology 2 N° 4 (2009), 661–700.

Isometry groups of non-positively curved spaces: discrete subgroups, (with P.-E. Caprace),
Journal of Topology 2 N° 4 (2009), 701–746.

Product groups acting on manifolds (with A. Furman),
Duke Mathematical Journal 148 N° 1 (2009), 1–39.

Some properties of non-positively curved lattices, (with P.-E. Caprace),
C. R. Acad. Sci. Paris, (Ser. I) 346 N° 15–16 (2008), 857–862.

Strong law of large numbers with concave moments, (with A. Karlsson),
arxiv 0803.1856 (2008), 2 pages.

Vanishing up to the rank in bounded cohomology
Mathematical Research Letters 14 N° 4 (2007), 681–687.

Property (T) and rigidity for actions on Banach spaces (with U. Bader, A. Furman, T. Gelander),
Acta Mathematica 198 N° 1 (2007), 57–105.

Superrigidity for irreducible lattices and geometric splitting
Journal Amer. Math. Soc. 19 N° 4 (2006), 781–814.

Orbit equivalence rigidity and bounded cohomology (with Y. Shalom),
Annals of Mathematics 164 N° 3 (2006) 825–878.

An invitation to bounded cohomology
Proceedings of the ICM 2006, Volume II, 1183–1211.

Amenable actions, free products and a fixed point property (with Y. Glasner),
Bull. London Math. Soc. 39 N° 1 (2007), 138–150.

Arithmeticity vs. *non-linearity for irreducible lattices*
Geom. Ded. 112 N° 1 (2005) 225–237.

Note: Superrigidity for irreducible lattices and geometric splitting
C. R. Acad. Sci. Paris, (Ser. I) 340 N° 3 (2005), 185–190.

Equivariant embeddings of trees in hyperbolic spaces (with M. Burger and A. Iozzi),
IMRN 2005:22 (2005), 1331–1369

Boundedly generated groups with pseudocharacter(s) (with B. Rémy),
Journal London Math. Soc. 73 N° 1 (2006), 104–108 (Appendix to J.F. Manning).

Ideal bicombings for hyperbolic groups, and applications (with I. Mineyev and Y. Shalom),
Topology 43 N° 6 (2004), 1319–1344.

Cocycle super-rigidity and bounded cohomology for negatively curved spaces (with Y. Shalom),
J. Differential Geometry 67 N° 3 (2004), 395–455.

Negative curvature from a cohomological viewpoint and cocycle superrigidity (with Y. Shalom),
C. R. Acad. Sci. Paris, Ser. I (337) N° 10 (2003), 635–638.

On co-amenability for groups and von Neumann algebras (with S. Popa),
C. R. Acad. Sci. Canada 25 N° 3 (2003), 82–87.

Stabilization of SL_n *in bounded cohomology*,
Proceedings of the First JAMS Symposium (2002), Contemp. Math. 347 (2004) 191–202.

On and around the bounded cohomology of SL_2 (with M. Burger),
In: **Rigidity in dynamics and geometry**, Springer 2002 19–37.

Continuous bounded cohomology and applications to rigidity theory (with M. Burger),
GAFA 12 N° 2 (2002), 219–280.

Continuous bounded cohomology of locally compact groups
Lecture Notes in Mathematics vol. 1758, Springer (2001), 214+ix pages.

Bounded cohomology of lattices in higher rank Lie groups (with M. Burger),
J. Eur. Math. Soc. 1 N° 2 (1999) 199–235.