

**Bachir Bekka**  
**Liste de publications**

## Livres

- [1] *Ergodic Theory and Topological Dynamics for Group Actions on Homogeneous Spaces* (avec M. Mayer), 200 pages+vii, Cambridge University Press 2000
- [2] *Kazhdan's Property (T)* (avec P. de la Harpe et A. Valette), 472 pages +xiv, Cambridge University Press 2008
- [3] *Unitary representations of groups, duals, and characters* (avec P. de la Harpe), 474 pages + xi, Mathematical Surveys and Monographs, 250. American Mathematical Society 2020

## Prépublications

- [4] *The  $L^p$ -dual space of a semisimple Lie group*, prépublication 2024, disponible sur : arXiv-2405.12919, hal-04582339f

## Articles parus ou à paraître

- [5] *The Bohr compactification of an arithmetic group*, à paraître dans Trans. Amer. Math. Soc.
- [6] *On Bohr compactifications and profinite completions of group extensions*, Math. Proc. Cambridge Philos. Soc. **176**, 373–393 (2024),
- [7] *On the spectral theory of groups of automorphisms of  $S$ -adic nilmanifolds* (avec Y. Guivarc'h), Ergodic Theory Dynam. Systems **44**, 705–726 (2024).
- [8] *Characters of algebraic groups over number fields* (avec C. Francini), Groups Geom. Dyn. **16**, 1119–1164 (2022).
- [9] *On unitary representations of algebraic groups over local fields* (avec S. Echterhoff), Represent. Theory **25**, 508–526 (2021)
- [10] *The Plancherel formula for countable groups*, Indag. Math. **32**, 619–638.(2021)
- [11] *Character rigidity of simple algebraic groups*, Math. Ann. **378**, 1223–1243 (2020)
- [12] *Spectral gap property and strong ergodicity for groups of affine transformations of solenoids* (avec C. Francini), Ergodic Theory Dynam. Systems **40**, 1180–1193 (2020)
- [13] *Quasi-regular representations of discrete groups and associated  $C^*$ -algebras* (avec K. Mehrdad), Trans. Amer. Math. Soc. **373**, 2105–2133 (2020)

- [14] *Infinite characters on  $GL_n(\mathbf{Q})$ , on  $SL_n(\mathbf{Z})$ , and on groups acting on trees*, J. Funct. Anal. **277**, 2160–2178 (2019)
- [15] *Property (T) for locally compact groups and  $C^*$ -algebras* (avec C.-K. Ng), Proc. Amer. Math. Soc. **147**, 2159–2169 (2019)
- [16] *Spectral rigidity of group actions on homogeneous spaces*, Handbook of group actions. Vol. IV, 563 ?622, Adv. Lect. Math. (ALM), 41, Int. Press, Somerville, MA, 2018.
- [17] *Harmonic cocycles, von Neumann algebras, and irreducible affine isometric actions*, New York J. Math. **23** 1205–1218 (2017).
- [18] *Irreducible affine isometric actions on Hilbert spaces* (avec T. Pillon et A. Valette), Münster Journal of Mathematics **9**, 1–34 (2016).
- [19] *Local rigidity for actions of Kazhdan groups on non commutative  $L_p$ -spaces*, Internat. J. Math. **26** (2015).
- [20] *On the spectral theory of groups of affine transformations of compact nilmanifolds* (avec Y. Guivarc'h), Ann. Sci. Ecole Normale Supérieure **48**, 607–645 (2015).
- [21] *On groups with Property  $(T_{\ell^p})$*  (avec B. Olivier), J. Funct. Anal. **267**, 643–659 (2014).
- [22] *Groups with faithful irreducible projective unitary representations* (avec P. de la Harpe), Forum Math. **25**, 505–531 (2013)
- [23] *Lattices with and lattices without spectral gap* (avec A. Lubotzky), Groups, Geometry, and Dynamics **5**, 251–264 (2011)
- [24] *Random products of automorphisms of Heisenberg nilmanifolds and Weil's representation* (avec J-R. Heu), Ergodic Theory and Dynamical Systems **31**, 1277–1286 (2011)
- [25] *A spectral gap property for subgroups of finite covolume in Lie groups* (avec Y. de Cornulier), Colloquium Mathematicum **118**, 175 -182 (2010)
- [26] *Irreducibly represented groups* (avec P. de la Harpe), Comment. Math. Helv. **83**, 847–868 (2008)
- [27] *Operator-algebraic superrigidity for  $SL_n(\mathbf{Z})$ ,  $n \geq 3$* , Inventiones Mathematicae **169**, 401-425 (2007)
- [28] *A Property (T) for  $C^*$ -algebras*, Bull. London Math. Soc. **38**, 857-867 (2006)
- [29] *A spectral gap property for random walks under unitary representations* (avec Y. Guivarc'h), Geometriae Dedicata **118**, 141 - 155 (2006)
- [30] *Square integrable representations, von Neumann algebras and an application to Gabor analysis*, J. Fourier Anal. Appl. **10**, 325-349 (2004)
- [31] *On Mackey's irreducibility criterion for induced representations* (avec R. Curtis), Inter. Math. Res. Not. **31**, 2095-2101 (2003)
- [32] *Irreducibility of unitary group representations and reproducing kernel Hibert spaces* (avec P. de la Harpe), Expositiones Math. **21**, 115-149 (2003)

- [33] *Kazhdan's Property (T) for the unitary group of a separable Hilbert space*, Geom. Funct. Analysis **13**, 509–520 (2003)
- [34] *Familles de graphes expanseurs et paires de Hecke* (avec R. Curtis et P. de la Harpe), C. R. Acad. Sci. Paris **335**, 463–468 (2002)
- [35] *Some irreducible unitary representations of  $G(K)$  for a simple algebraic group  $G$  over a number field  $K$*  (avec M. Cowling), Math. Z. **241**, 731–741 (2002)
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- [40] *Some properties of  $C^*$ -algebras associated to discrete linear groups* (avec N. Louvet), In “ $C^*$ -algebras” (Ed. Cuntz, Echterhoff), 1–22, Springer, 2000
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- [42] *Restrictions of irreducible unitary representations of nilpotent Lie groups to lattices* (avec P. Driutti), Journal of Funct. Anal. **168**, 514–528 (1999)
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## Travaux d'édition

- [70] *Proceedings of the Conference on Harmonic Analysis 2002* Editeurs : B. Bekka, J. Ludwig, C. Molitor-Braun, and N. Poncin  
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