

Curriculum vitae

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- Né le: 02 Février 1974 à Fontenay-Aux-Roses (92).
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Expérience professionnelle

- avril, septembre 2009: “Visiting Professor” de l’Académie Royale Néerlandaise des Arts et des Sciences, en visite au département de physique de l’Université d’Amsterdam.
- novembre 2008–: Chargé de recherche au LPTHE Jussieu (UMR 7589)
- novembre 2007–octobre 2008: Stage au LPTHE Jussieu (UMR 7589).
- avril 2005–octobre 2007: Chargé de recherche au LPTMS Orsay (UMR 8626).
- mars 2004–mars 2005: Mise à disposition au Laboratoire Poncelet (LIFR–MIIP, puis UMI 2615), Moscou.
- octobre 2000–avril 2004: Chargé de recherche au LPTMS Orsay (UMR 8626).
- avril–septembre 2000: Visiteur au C.N. Yang Institute for Theoretical Physics à l’université de Stonybrook.
- octobre 1998–mars 2000: Post-doc au New High Energy Theory Center à l’université de Rutgers.
- 1995–1998: Thèse de physique théorique au Laboratoire de Physique Théorique de l’Ecole Normale Supérieure de Paris, sous la direction de V. Kazakov.

Enseignement

- 1997–1998: Chargé de T.D. au Magistère Inter-universitaire de Physique (ENS): cours de mathématiques.
- 1995–1997: Colleur en mathématiques au lycée Louis-Le-Grand (Math. Spé. M’).

Parcours scolaire et universitaire

- 2008: Soutenance d’habilitation à diriger des recherches “Six-Vertex, Loop and Tiling models: Integrability and Combinatorics” (Paris 6).
- 1998: Soutenance de thèse “Quelques applications de l’Ansatz de Bethe”, mention très honorable avec les félicitations du jury.
- 1996: Agrégation de mathématiques (rang: huitième).
- 1994–1995: D.E.A. de physique théorique de l’ENS (rang: premier).
- 1993–1994: Licence et maîtrise de Mathématiques, licence de Physique.

- 1993: Admission (rang: second) à l’Ecole Normale Supérieure de Paris sur le concours Math./Physique/Info.

Administration de la recherche

- Organization de rencontres scientifiques: colloque “Combinatorial methods in Physics and Knot Theory”, Moscou (Russie), 21–25 février 2005; conférence “GIMP’06”, Moscou (Russie), 15–19 juin 2006; conférence “GIMP’08”, CIRM Luminy, 15–19 septembre 2008.
- Supervision d’un étudiant en thèse (T. Fonseca, 2007–), de deux post-docs (L. Cantini, 2006–2008 et K. Kalle, 2007–2008) et d’un stagiaire (R. Langer, 2008).
- “Scientist in charge” du réseau Européen Marie Curie Research Training Network “ENRAGE” (Random Geometry and Random Matrices: From Quantum Gravity to Econophysics), 2005–2009. Membre du réseau Européen “ENIGMA”, 2005–2008 et du programme ESF “MISGAM”, 2005–2009.
- Coordinateur du programme ANR “GIMP” (Geometry and Integrability in Mathematical Physics), 2006–2009.

PUBLICATIONS

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- [1] P. Zinn-Justin. Universality of correlation functions of Hermitian random matrices in an external field. *Comm. Math. Phys.*, 194(3):631–650, 1998.
- [2] P. Zinn-Justin and N. Andrei. The generalized multi-channel Kondo model: thermodynamics and fusion equations. *Nuclear Phys. B*, 528(3):648–682, 1998.
- [3] P. Zinn-Justin. Nonlinear integral equations for complex affine Toda models associated with simply laced Lie algebras. *J. Phys. A*, 31(31):6747–6770, 1998.
- [4] V. Kazakov and P. Zinn-Justin. Two-matrix model with *ABAB* interaction. *Nuclear Phys. B*, 546(3):647–668, 1999.
- [5] P. Zinn-Justin. Adding and multiplying random matrices: a generalization of Voiculescu’s formulas. *Phys. Rev. E* (3), 59(5, part A):4884–4888, 1999.
- [6] P. Zinn-Justin. The dilute Potts model on random surfaces. *J. Statist. Phys.*, 98(1-2):j10–264, 2000.
- [7] P. Zinn-Justin and J.-B. Zuber. Matrix integrals and the counting of tangles and links. *Discrete Math.*, 246(1-3):343–360, 2002. proceedings of “Formal power series and algebraic combinatorics” (Barcelona, 1999).
- [8] P. Zinn-Justin. Some matrix integrals related to knots and links. In *Random matrix models and their applications*, volume 40 of *Math. Sci. Res. Inst. Publ.*, pages 421–438. Cambridge Univ. Press, Cambridge, 2001. proceedings of the 1999 semester at the MSRI.
- [9] P. Zinn-Justin. The six-vertex model on random lattices. *Europhys. Lett.*, 50(1):15–21, 2000.
- [10] P. Zinn-Justin and J.-B. Zuber. On the counting of colored tangles. *J. Knot Theory Ramifications*, 9(8):1127–1141, 2000.
- [11] V. Korepin and P. Zinn-Justin. Thermodynamic limit of the six-vertex model with domain wall boundary conditions. *J. Phys. A*, 33(40):7053–7066, 2000.
- [12] P. Zinn-Justin. Six-vertex model with domain wall boundary conditions and one-matrix model. *Phys. Rev. E*, 62(3, part A):3411–3418, 2000.
- [13] V. Korepin and P. Zinn-Justin. Inhomogeneous six-vertex model with domain wall boundary conditions and Bethe ansatz. *J. Math. Phys.*, 43(6):3261–3267, 2002.

- [14] J. Jacobsen and P. Zinn-Justin. A transfer matrix approach to the enumeration of knots. *J. Knot Theory Ramifications*, 11(5):739–758, 2002.
- [15] J. Jacobsen and P. Zinn-Justin. A transfer matrix approach to the enumeration of colored links. *J. Knot Theory Ramifications*, 10(8):1233–1267, 2001.
- [16] P. Zinn-Justin. The general $O(n)$ quartic matrix model and its application to counting tangles and links. *Comm. Math. Phys.*, 238(1-2):287–304, 2003.
- [17] J. Jacobsen and P. Zinn-Justin. The combinatorics of alternating tangles: from theory to computerized enumeration. In *Asymptotic combinatorics with application to mathematical physics (St. Petersburg, 2001)*, volume 77 of *NATO Sci. Ser. II Math. Phys. Chem.*, pages 97–112. Kluwer Acad. Publ., Dordrecht, 2002.
- [18] J. Jacobsen and P. Zinn-Justin. Matrix models and the enumeration of alternating tangles. *Markov Process. Related Fields*, 9(2):301–310, 2003. proceedings of “Inhomogeneous random systems” (Cergy-Pontoise, 2002).
- [19] J. Jacobsen and P. Zinn-Justin. A transfer matrix for the backbone exponent of two-dimensional percolation. *J. Phys. A*, 35(9):2131–2144, 2002.
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- [22] J. Jacobsen and P. Zinn-Justin. Monochromatic path crossing exponents and graph connectivity in 2d percolation. *Phys. Rev. E*, 66(R):055102, 2002.
- [23] P. Zinn-Justin and J.-B. Zuber. On some integrals over the $U(N)$ unitary group and their large N limit. *J. Phys. A*, 36(12):3173–3193, 2003. special issue on Random Matrix Theory.
- [24] G. Schaeffer and P. Zinn-Justin. On the asymptotic number of plane curves and alternating knots. *Experiment. Math.*, 13(4):483–493, 2004.
- [25] P. Zinn-Justin and J.-B. Zuber. Matrix integrals and the generation and counting of virtual tangles and links. *J. Knot Theory Ramifications*, 13(3):325–355, 2004.
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- [32] P. Di Francesco and P. Zinn-Justin. Inhomogeneous model of crossing loops and multidegrees of some algebraic varieties. *Comm. Math. Phys.*, 262(2):459–487, 2006.
- [33] A. Knutson and P. Zinn-Justin. A scheme related to the Brauer loop model. *Adv. Math.*, 214(1):40–77, 2007.
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- [46] P. Zinn-Justin. Littlewood–Richardson coefficients and integrable tilings. *Electron. J. Combin.*, 16:Research Paper 12, 2009.
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- [48] T. Banica, B. Collins, and P. Zinn-Justin. Spectral analysis of the free orthogonal matrix. *Int. Math. Res. Not.*, 17:3286–3309, 2009.
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