Curriculum Vitae

Karol Kajetan Kozlowski
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- Born on 22.08.1982, in Warsaw (Poland) ;
- Nationality: French/Polish;
- Languages: French, Polish, Spanish and English (all fluent), German (beginner).

• Education and academic degrees

June 2015 Habilitation à diriger les recherches "*Asymptotic analysis and quantum integrable models*" (IMB, Dijon, France).

Dec. 2008 Thesis "*Asymptotiques des fonctions de corrélations des modèles intégrables quantiques et problèmes de Riemann-Hilbert*", supervisor J.-M. Maillet (Laboratoire de Physique, ENS de Lyon).

2002-05 Batchelor and Master in theoretical physics (ENS de Lyon).

2000-02 Classes pérparatoires PCSI, PC* (Lycée du Parc).

• Present employment

2015- Chargé de recherche, CNRS (Laboratoire de Physique, ENS de Lyon).

• Present employments

2012-2015 Chargé de recherche, CNRS (IMB, Dijon, France).

Aug.-Dec. 2011 assistant professor (IUPUI, Indianapolis, USA).

2009-11 Postdoc (DESY, Hambourg, Allemagne) financed by a Marie-Curie action.

2006-09 PhD fellowship & teaching allowance (Laboratoire de Physique, ENS de Lyon)

2002-06 ENS student fellowship (Département de physique, ENS de Lyon)

Scientific interests

- Computation and analysis of the correlation functions in quantum integrable models.
- Asymptotic analysis under various forms
- Special functions.
- Quantum field theory and condensed matter theory in one dimension.

Obtained fundings

Main investigator

- 80 Prime CNRS 2020-2022 "*Asymptotiques d'intégrales associées à la séparation des variables quantiques*" co-obtained with A. Guionnet (UMPA, ENS de Lyon).
- PICS 2018-2020 "*Fonctions de corrélations dynamiques dans la chaîne XXZ à température finie*".
- CNRS installation grant at ENS de Lyon (2016);
- PARI 2013-2015 FABER grant "*Structures et asymptotiques d'intégrales multiples*";
- PEPS-PTI 2012 "*Asymptotique d'intégrales multiples*";

Participant

- "*Large Deviations in Random Matrix Theory*" ERC-Advanced of A. Guionnet (LDRaM).
- "*Developing an Integrable Approach to Dynamical and Elliptic ModelS*" DIADEMS (SIMI 1 2010-BLAN-0120-02).
- "*Geometry and Integrability in Mathematical Physics*" GIMP (ANR-05-BLAN-0029-01).

Teaching

2019-2020	Travaux dirigés en L3 (Méthodes Mathématiques 2) 14h TD Travaux dirigés en M2 (Champs quantiques en interaction) 12h TD et rapporteur de compte rendu de stage de M2 (1 rapport).
2019-2020	Travaux dirigés en L3 (Méthodes Mathématiques 2) 14h TD Travaux dirigés en M1 (Fonctions de green et applications, Symétries et groupes) 16h TD Travaux dirigés en M2 (Champs quantiques en interaction) 12h TD et rapporteur de compte rendu de stage de L3-M1 (2 rapports) et M2 (2 rapports).
2018-2019	Travaux dirigés en L3 (Méthodes Mathématiques 2) 14h TD Travaux dirigés en M1 (Fonctions de green et applications, Symétries et groupes) 16h TD Travaux dirigés en M2 (Champs quantiques en interaction) 12h TD et rapporteur de compte rendu de stage de L3-M1 (5 rapports) et M2 (2 rapports).
2017-2018	Travaux dirigés en M1 (Fonctions de green et applications, Symétries et groupes) 16h TD Travaux dirigés en M2 (Champs quantiques en interaction) 12h TD et rapporteur de compte rendu de stage de M1 (4 rapports) et M2 (2 rapports).
2016-2017	Travaux dirigés en M1 (Fonctions de green et applications, Symétries et groupes) 16h TD
2015-2016	Rapporteur de compte rendu de stage de M1 et M2 (5 rapports).
2012-13	*"Asymptotic behaviour of beta ensembles"* au sein du KMMF, Université de Varsovie, Pologne (12h).
2012-13	*"Asymptotic behaviour of beta ensembles"* au sein de l'IMB, Université de Bourgogne, France (6h).
2011-12	*"Topics in the asymptotic behavior of correlation functions in one dimensional gapless models"* au sein du LAPTH, Université de Savoie (10h).
2008-09	*"Introduction au calcul des blocs élmentaires de la chaîne XXZ avec bords diagonaux"* au sein du LAPTH, Université de Savoie (10h).
2009-10	Cours "Integrable models" au sein du M2 de l'université de Hambourg.
2006-09	Monitorat (ENS de Lyon): Travaux dirigés en M1, quelques cours en agrégation.
2005-06	Colleur en mathématiques (PC* au lycée du Parc).
2003-04	Co-auteur des corrections aux examens d'entrés aux grandes écoles (éditions H-K).

Thesis supervisor

- Charlie Dworaczek (Oct.2020 - Sept.2022)
  "*Asymptotics of multiple integrals associated with the quantum separation of variables*".
- Salvish Goomanee (Oct.2016 - Sept.2019)
  "*Rigorous approach to quantum integrable models at finite temperature*".

Supervision of students

- Tutor of Alex Simon Sept.2019-Aug 2022. (L3 → M2 à l'ENS de Lyon).
- External referee of Thomas Chouteau, PhD student of M. Cafasso (2020-2022) at LAREMA, Angers.
- Master M2 internship of Yohan Potaux (April-July 2020) "*Correlation Functions in the 1+1 dimensional Quantum Sinh-Gordon Model*".
- External referee of Giridhar Kulkarni, PhD student of N. Kitanine (2016-20) at Institut de Mathématiques de Bourgogne, Dijon.
- Bibliographical project tutor *"6 vertex model and the XXZ spin chain"* in Master 1 of Romain Pascalie and Théo Sepulcre (2015-16).
- L3 internship of Romain Thomas (June-July 2009) "*Quelques résultats exacts relatifs à la chaîne de spins XXZ*".

Thesis Referee and defence jury member

- Jury member for the thesis of Giridhar Kulkarni "*???*" defended on November 20, 2020
- Referee and jury member for the thesis of Denis Sebastian Grijalva "*Boundary effects in quantum spin chains and finite-size effects in the toroidal correlated perocaltion model*" defended on October, 15, 2020
- Referee and jury member for the thesis of Benoît Vallet "*Wave Functions and Scalar Products in the Bethe Ansatz*"defended on October, 10, 2019

Conference organiser

i) 29 Aug.- 2 Sept. 2022, *Recent Advances in Quantum Integrable Systems*, ENS de Lyon, France. Co-organised with E. Ragoucy and J.-M. Stephane.

Website "http://lapth.cnrs.fr/conferences/RAQIS/RAQIS22/".

ii) 24 May 2018, *Journée de l'équipe 4*, Lyon, France. Co-organisé avec L. Savary.

iii) 23-26 October 2017, *Correlation functions in quantum integrable models ... and beyond: A conference on the occasion of the 60th birthday of Jean-Michel Maillet*, Lyon, France. Co-organised with L. Friedel, N. Kitanine and V. Terras. Website "https://jmm60.sciencesconf.org/".

iv) 28 January 2016, *Journée des théoriciens*, Lyon, France. Co-organised with P. Delplace.

v) 1-5 September 2014, *Recent Advances in Quantum Integrable Systems*, Dijon, France. Co-organised with N. Kitanine, E. Ragoucy and V. Roubsov. Website "http://raqis14.sciencesconf.org/".

vi) 4-6 September 2013 *Correlation Functions of Quantum Integrable Models*, Dijon, France. Co-organised with N. Kitanine. Website "http://cfim13.sciencesconf.org/".

Invited speaker

1. 23-27 May 2022, *"Various aspects of integrable systems"*, Bad-Honnef, Germany.
2. 18 April - 3 June 2022, *"Randomness, Integrability and Universality"*, Galileo Galilei Institute workshop, Florence, Italy.

3. 2-6 September 2019, *"Integrability, combinatorics, and representations"*, Belambra conference center, peninsula of Giens, France.

4. 24-27 June 2019, *"On mathematical aspects of interacting systems in low dimension"*, FernUniversität Hagen, Hagen, Germany.

5. 11-13 April 2019 *"Correlations in Integrable Quantum Many-Body Systems"*, University of Wüppertal, Wüppertal, Germany.

6. 3-7 September 2018, *"Correlations in Integrable Quantum Many-Body Systems"*, University of Wüppertal, Wüppertal, Germany.

7. 23-28 July 2018, *"XIX International Congress on Mathematical Physics"*, Integrable systems session, Montréal, Canada.

8. 11-12 June 2018, *"Young Researchers Meeting on Integrable Systems"*, University of Cergy-Pontoise, Neuville sur Oise, France.

9. 4-8 September 2017, *"Workshop on Moduli spaces of Curves, Integrable Systems and related subjects"*, Institut de Mathématiques de Bourgogne, Dijon, France.

10. 17-21 July 2017, *"Integrability in Gauge and String Theory"*, École Normale Supérieure, Paris, France.

11. 26 June -14 July 2017, *"Integrability in Low-Dimensional Quantum Systems"*, MATRIX Workshop, Creswick Campus, Melbourne University, Australia.

12. 12-23 September 2016, *"Quantum integrable systems, conformal field theories and stochastic processes"*, Institut d'Études Scientifiques de Cargèse, Cargèse, France.

13. 1-15 September 2016, *New Trends in Low-Dimensional Physics: Quantum Integrability and Applications*, Institute of Physics, Chinese Academy of Sciences, Beijing, China.

14. 4-8 July 2016, *"Topological Recursion and its Influence in Analysis, Geometry, and Topology."*, 2016 AMS von Neumann Symposium, Hilton Charlotte University Place, North Carolina, United-States.

15. 11-15 April 2016, *"Beta Ensembles: Universality, Integrability, and Asymptotics"*, Banff International Research Station, Banff, Alberta, Canada.

16. 11-15 January 2016, *"Probability and asymptotic analysis in strongly coupled systems"*, Hausdorff Center for Mathematics, Université de Bonn, Germany.

17. 13-17 July 2015, *"Beyond Integrability: the Mathematics and Physics of Integrability and its Breaking"*, Centre de Recherches Mathématiques, Montréal, Canada.

18. 1-5 June 2015, *Orthogonal Polynomials, Special Functions, and Applications: "Riemann–Hilbert problems and applications workshop"*, Gaithersburg, Maryland, United-States.

19. 10-12 April 2015, *34th Max-Born Symposium*, University of Wroclaw, Wroclaw, Poland.

20. 2-6 March 2015, *"Integrability vs. non-integrability in statistical mechanics"*, Simons Center for Geometry and Physics, Stony Brook, United-States.

21. 18-20 December 2014, *"Xmas workshop on integrable systems and moduli spaces"*, Universitá degli Studi di Genova, Gennes, Italy.

22. 28 June - 2 July 2014, *"Integrable lattice models and quantum field theories"*, Bad Honnef, Germany.

23. 21-23 May 2012, 60^{th} birthday conference of Alexander Its: *"Integrable Systems and Random Matrices"*, Institut Henri Poincaré, Paris, France.

24. 8-10 September 2011: *"Correlation Functions of Quantum Integrable Models"*, Institut de Mathématiques de Bourgogne, Dijon, France.

Collaborateurs

O. Babelon (UPMC, Paris, France), G. Borot (MPI-Bonn, Allemagne), S. Derkachov (Stekolv Mathematical Institute, St. Petersbourg, Russie), M. Dugave (Fachbereich Fizyk, Wüppertal Universität), H. Duminil-Copin (IHES, Brues-sur-Yvette, France and Section de mathématiques, Université de Genève, Suisse), K. Gawedzki (Laboratoire de physique, ENS-Lyon, France), F. Göhmann (Fachbereich Fizyk, Wüppertal Universität), A. Guionnet (UMPA, ENS-Lyon, France), A.R. Its (department of mathematics, IUPUI, Indianapolis, États-Unis), N. Kitanine (IMB, Université de Bourgogne, Dijon), J.-M. Maillet (Laboratoire de physique, ENS-Lyon, France), A. Manashov (Institut für Theoretische Physik, Universität Hamburg, Allemagne) I. Manolescu (Département de mathématiques, Université de Fribourg, Suisse) G. Niccoli (Laboratoire de physique, ENS-Lyon, France), V. Pasquier (IPhT, CEA-Saclay, France), B. Pozsgay (Budapest University, Hongrie), E.K. Sklyanin (department of mathematics, University of York, Royaume-Uni), N.A. Slavnov (Steklov Mathematical Institute, Moscow, Russie), J. Suzuki (département de physique, Université de Shizuoka, Shizuoka, Japon), V. Terras (LPTMS, Université Paris Sud, Paris, France) and J. Teschner (DESY, Hamburg, Allemagne).

Popularisation of science

- Presentation of about the work of a researcher at the event "La science : un métier de femme" (2020).
- Informal discussions on theoretical physics with high-school students (2020).
- Informal presentation to college students about the goals of theoretical physics (2017 et 2018).
- Animation of the stand "electromagnetism" at the feast of science 2018 (ENS de Lyon).
- Animation of the stand "phase transitions" at the feast of science 2016 and 2017 (ENS de Lyon).

Short scientific visits

- 4-18 juillet, 2020, Université de Wüppertal, Wüppertal, Allemagne.
- 3-7 mars, 2020, King's College, London, Royaume-Uni.
- 5-15 novembre 2019, Université de Wüppertal, Wüppertal, Allemagne.
- 7-13 juillet 2019, Université de Wüppertal, Wüppertal, Allemagne.
- 7-14 avril 2019, Université de Wüppertal, Wüppertal, Allemagne.
- 9-14 décembre 2018, Université de Wüppertal, Wüppertal, Allemagne.
- 30 avril -11 mai 2018, Université de Wüppertal, Wüppertal, Allemagne.
- 28 novembre -2 décembre 2016, IPhT, CEA Saclay, Paris, France.
- 13-18 mars 2016, Université de Wüppertal, Wüppertal, Allemagne.
- 6-25 avril 2015, KMMF, Varsovie, Pologne.
- 23-28 février 2015, IUPUI-Département de Mathematiques, Indianapolis, États-Unis.
- 9-13 février 2015, LAPTH, Annecy-le-vieux, France.
- 6-17 octobre 2014, KMMF, Varsovie, Pologne.
- 2-7 février 2014, Université de Wüppertal, Wüppertal, Allemagne.
- 11-20 décembre 2013, KMMF, Varsovie, Pologne.
- 08-20 juillet 2013, JINR, Dubna, Russie.
- 19-26 janvier 2013, MIT-Département de Mathematiques, Boston, États-Unis.
- 15 octobre-9 novembre 2012, IUPUI-Département de Mathematiques, Indianapolis, États-Unis.
- 8-27 juillet 2012,Université de York-Département de Mathematiques, York, Royaume-uni.
- 25 mai –22 juin 2012, LAPTH, Annecy-le-Vieux, France.
- 13-17 mars 2011, ITF, Amsterdam, Pays-Bas.
- 24 oct.- 5 nov. 2010, YITP, Stony Brook, États-Unis.
- 13-17 juillet 2009, DESY, Hambourg, Allemagne.
- 25-29 juin 2009, LAPTH, Annecy-le-vieux, France.
- 16-21 février 2009, Université de York-Département de Mathematiques, York, Royaume-uni.

Reviewer

- (Revues) Math. Rev., J. Math. Phys., J. Phys. A, SIGMA, J. Stat., J. Stat. Mech, Ann. H.-P., Lett. Math. Phys., Sci. Post., Comm. Math. Phys., J. Math. Phys. Anal. and Geo., Prob. Math. Phys.
- (Livres) Prog. Math. Phys., Math. Phys. Study

Published books

1. G. Borot, A. Guionnet, K. K. Kozlowski, *Asymptotic expansion of a partition function related to the sinh-model*, livre dans la série Mathematical Physics Study, Springer (2016), math-ph: 1412.7721.

Published papers

1. K. Gawedzki et K.K. Kozlowski, *Full counting statistics of energy transfers in inhomogeneous nonequilibrium states of (1+1)D CFT*, Comm. Math. Phys., 377(2), 1227-1309, (2020), https://doi.org/10.1007/s00220-020-03774-5

2. F. Göhmann, K.K. Kozlowski et J. Suzuki, *Late-time large-distance asymptotics of the transverse correlation functions of the XX chain in the space-like regime*, Lett. Math. Phys.,

   https://doi.org/10.1007/s11005-020-01276-y, ArXiV: cond-mat.stat-mech: 1908.11555, 13 pp.

3. F. Göhmann, S. Goomanee, K.K. Kozlowski et J. Suzuki, *Thermodynamics of the spin-1/2 Heisenberg-Ising chain at high temperatures: a rigorous approach*, Comm. Math. Phys. 377(1), 623-673, 2020. https://doi.org/10.1007/s00220-020-03749-6, ArXiv: math-ph 1811.12020, 44 pp.

4. F. Göhmann, K.K. Kozlowski et J. Suzuki, *High-temperature analysis of the transverse dynamical two-point correlation function of the XX quantum-spin chain*, J. Math. Phys., https://doi.org/10.1063/1.5111039, ArXiV: math-ph 1905.04922, 36 pp.

5. F. Göhmann, K.K. Kozlowski, J. Sirker et J. Suzuki, *The equilibrium dynamics of the XX chain*, Phys. Rev. B, **100**, 155428, (2019).

6. R. Gharakhloo, A.R. Its et K.K. Kozlowski, *Riemann-Hilbert approach to a generalised sine kernel*, Lett. Math. Phys., , 1-29, (2019) https://doi.org/10.1007/s11005-019-01218-3, ArXiV: math-ph 1905.04907, 23pp.

7. K.K. Kozlowski, *Long-distance and large-time asymptotic behaviour of dynamic correlation functions in the massless regime of the XXZ spin-1/2 chain*, J. Math. Phys. **60**:7, 073303, (2019).

8. S. E. Derkachov, K. K. Kozlowski et A. N. Manashov, *On the separation of variables for the modular XXZ magnet and the lattice Sinh-Gordon models.* Ann. H.-Poincaré **20**:8, 26232670, (2019).

9. K. K. Kozlowski, *On the thermodynamic limit of form factor expansions of dynamical correlation functions in the massless regime of the XXZ spin 1/2 chain.*, J. Math. Phys. **59** (9), 091408 (2018) (https://doi.org/10.1063/1.5021892). Special issue "In memory of Ludwig Faddeev".

10. O. Babelon, K.K. Kozlowski et V. Pasquier, *Solution of Baxter equation for the q-Toda and Toda$_2$ chains by NLIE.*, SciPost Phys. 5, 035 (2018).

11. O. Babelon, K.K. Kozlowski et V. Pasquier, *The Toda$_2$ chain.*, Lett. Math. Phys., 1-17, (2018), DOI 10.1007/s11005-018-1111-y

12. O. Babelon, K.K. Kozlowski et V. Pasquier, *Baxter operator and Baxter equation for q-Toda and Toda$_2$ chains.*, "Ludwig Faddeev Memorial Volume" publié par World Scientific. (2018). Republié dans Reviews in Mathematical Physics, **30**, issue 6, 1840003, (2018). (34 pages)

13. K. K. Kozlowski, *On condensation properties of Bethe roots associated with the XXZ chain*, Comm. Math. Phys. **357** (3), 1009-1069 (2018), https://doi.org/10.1007/s00220-017-3066-8.

14. F. Göhmann, M. Karbach, A. Klümper, K. K. Kozlowski et J. Suzuki, *Thermal form-factor approach to dynamical correlation functions of integrable lattice models*, J. Stat. Mech. (2017) 113106.

15. K. K. Kozlowski, *Form factors of bound states in the XXZ chain*, J. Phys. A: Math. & Theor. Special issue "Emerging talents", **50**, 184002, (2017).

16. K. K. Kozlowski, E.K. Sklyanin et A. Torrielli, *Quantisation of Kadomtsev-Petviashvili equation*, Theor. Math. Phys. special issue "P.P. Kulish memorial", **192**, 2, 259283, (2017).

17. M. Dugave, F. Göhmann, K. K. Kozlowski et J. Suzuki, *Thermal form factor approach to the ground-state correlation functions of the XXZ chain in the antiferromagnetic massive regime*, J. Phys. A: Math. & Theor. Special issue "Quantum integrability and quantum groups", **49**, 394001, (2016)

18. K.K. Kozlowski et E. Ragoucy, *Asymptotic behaviour of two-point functions in multi-species models*, Nucl. Phys. B, (2016).

19. M. Dugave, F. Göhmann, K. K. Kozlowski et J. Suzuki, *Asymptotics of correlation functions of the Heisenberg-Ising chain in the easy-axis regime*, J. Phys. A: Math. & Theor. 49, 07LT01, (2016). Article choisi pour la collection "Journal of Physics A Highlights of 2016".

20. M. Dugave, F. Göhmann, K. K. Kozlowski et J. Suzuki, *Low-temperature spectrum of correlation lengths of the XXZ chain in the antiferromagnetic massive regime*, J. Phys. A: Math. & Theor. **48**, 334001 (2015).

21. K. K. Kozlowski et J. M. Maillet, *Microscopic approach to a class of 1D quantum critical models*, J. Phys. A: Math. & Theor. Special Issue "Exactly Solved Models and Beyond", **48**, 484004, (2015).

22. A. R. Its et K. K. Kozlowski, *Large-x analysis of an operator valued Riemann-Hilbert problem*, Int. Math. Res. Not., doi: 10.1093/imrn/rnv188, (2015).

23. M. Dugave, F. Göhmann, K. K. Kozlowski et J. Suzuki, *On form factor expansions for the XXZ chain in the massive regime*, J. Stat. Mech. (2015) P05037.

24. M. Dugave, F. Göhmann et K. K. Kozlowski, *Low-temperature large-distance asymptotics of the transversal two-point functions of the XXZ chain* , J. Stat. Mech. (2014) P04012.

25. G. Borot, A. Guionnet, K. K. Kozlowski, *Large-N asymptotic expansion for mean field models with Coulomb gas interaction*, Int. Math. Res. Not., (2015).

26. K. K. Kozlowski, *Unitarity of the SoV transform for the Toda chain*, Comm. Math. Phys. **334**, Issue 1 ,223-273 (2015).

27. N. Kitanine, K. K. Kozlowski, J.-M. Maillet et V. Terras, *Long-distance asymptotic behaviour of multi-point correlation functions in massless quantum models*, J. Stat. Mech. (2014) P05011.

28. M. Dugave, F. Göhmann et K. K. Kozlowski, *Functions characterizing the ground state of the XXZ spin-1/2 chain in the thermodynamic limit* , SIGMA 10 (2014), 043, 18 pages.

29. K. K. Kozlowski, *On lacunary Toeplitz determinants*, J. Asympt. Analysis 88, 1-16, (2014).

30. K. K. Kozlowski, *Aspects of the inverse problem for the Toda chain*, J. Math. Phys. 54, 121902 (2013).

31. M. Dugave, F. Göhmann et K. K. Kozlowski, *Thermal form factors of the XXZ chain and the large-distance asymptotics of its temperature dependent correlation functions*, J. Stat. Mech.: Th. and Exp., P07010, (2013).

32. A.R. Its et K. K. Kozlowski, *On determinants of integrable operators with shifts*, Int. Math. Res. Not., DOI: 10.1093/imrn/rnt191, (2013).

33. N. Kitanine, K. K. Kozlowski, J.-M. Maillet, N. A. Slavnov et V. Terras, *Form factor approach to dynamical correlation functions in critical models*, J. Stat. Mech. (2012) P09001.

34. K. K. Kozlowski et E. K. Sklyanin, *Combinatorics of generalized Bethe equations*, Lett. Math. Phys. 103, 1047-1077 (2013).

35. K. K. Kozlowski et B. Pozsgay, *Surface free energy of the open XXZ spin-1/2 chain*, J. Stat. Mech. (2012) P05021.

36. K. K. Kozlowski, *Low-T asymptotic expansion of the solution to the Yang-Yang equation*, Lett. Math. Phys., **104**, 55-74, (2014).

37. N. Kitanine, K. K. Kozlowski, J.-M. Maillet, N. A. Slavnov et V. Terras, *A form factor approach to the asymptotic behavior of correlation functions in critical models*, J. Stat. Mech. : Th. and Exp., P12010, (2011).

38. K. K. Kozlowski, *On Form Factors of the conjugated field in the non-linear Schrödinger model*, J. Math. Phys. 52, 083302 (2011).

39. K. K. Kozlowski, J.-M. Maillet et N. A. Slavnov, *Correlation functions of one-dimensional bosons at low temperature*, J. Stat. Mech.: Th. and Exp., P03019, (2011).

40. K. K. Kozlowski, *Large-distance and long-time asymptotic behavior of the reduced density matrix in the non-linear Schrödinger model*, Ann. H. Poincaré , **16** , Issue 2, 437-534, (2015).

41. K. K. Kozlowski et V. Terras *Long-time and large-distance asymptotic behavior of the current-current correlators in the non-linear Schrödinger model*, J. Stat. Mech.: Th. and Exp., P09013, (2011).

42. K. K. Kozlowski, *Riemann–Hilbert approach to the time-dependent generalized sine kernel*, Adv. Theor. Math. Phys. **15**-6, (2011), 1655-1743.

43. K. K. Kozlowski, J.-M. Maillet et N. A. Slavnov, *Long-distance behavior of temperature correlation functions of the one-dimensional Bose gas*, J. Stat. Mech.: Th. and Exp., P03018, (2011).

44. K. K. Kozlowski et J. Teschner, *TBA for the Toda chain*, Festschrift volume for Tetsuji Miwa, "Infinite Analysis 09: New Trends in Quantum Integrable Systems".

45. N. Kitanine, K. K. Kozlowski, J.-M. Maillet, N. A. Slavnov et V. Terras, *Thermodynamic limit of particle-hole form factors in the massless XXZ Heisenberg chain*, J. Stat. Mech.: Th. and Exp., P05028, (2011).

46. N. Kitanine, K. K. Kozlowski, J.-M. Maillet, N. A. Slavnov et V. Terras, *On the thermodynamic limit of form factors in the massless XXZ Heisenberg chain*, J. Math. Phys. 50, 095209, (2009).

47. K. K. Kozlowski, *Fine structure of the asymptotic expansion of cyclic integrals*, J. Math. Phys. 50, 095205, (2009).

48. J.-G. Hagmann, K. K. Kozlowski, N. Theodorakopoulos et M. Peyrard, *On 4-point correlation functions in simple polymer models*, J. Stat. Mech.: Th. and Exp., P04011, (2009).

49. N. Kitanine, K. K. Kozlowski, J.-M. Maillet, N. A. Slavnov et V. Terras, *Algebraic Bethe Ansatz approach to the asymptotic behavior of correlation functions*, ArXiV math-ph 08080227, J. Stat. Mech.: Th. and Exp., P04003, (2009).

50. N. Kitanine, K. K. Kozlowski, J.-M. Maillet, N. A. Slavnov et V. Terras, *The Riemann-Hilbert approach to a generalized sine kernel and applications*, (2008), Comm. Math. Phys. 291, 691-761, (2009). doi: 10.1007/s00220-009-0878-1.

51. N. Kitanine, K. K. Kozlowski, J.-M. Maillet, G. Niccoli, N. A. Slavnov et V. Terras, *Correlation functions of the open XXZ chain II*, J. Stat. Mech.: Th. and Exp., P07010, (2008).

52. K. K. Kozlowski, *On the emptiness formation probability of the open XXZ spin 1/2-chain*, J. Stat. Mech.: Th. and Exp., P020006, (2008).

53. N. Kitanine, K. K. Kozlowski, J.-M. Maillet, G. Niccoli, N. A. Slavnov et V. Terras, *Correlation functions of the open XXZ chain I*, J. Stat. Mech.: Th. and Exp., P10009, (2007).

54. N. Kitanine, K. K. Kozlowski, J.-M. Maillet, N. A. Slavnov et V. Terras, *On correlation functions of integrable models associated with the six-vertex R-matrix*, J. Stat. Mech.:Th. and Exp., P01022, (2007).

Pre-publications

- K. Gawedzki, K. K. Kozlowski, *Large deviations of energy transfers in nonequilibrium CFT and asymptotics of non-local Riemann-Hilbert problems*, arXiv: math-ph: 2007.14737, 72 pages.
- K. K. Kozlowski, *On convergence of form factor expansions in the infinite volume quantum Sinh-Gordon model in 1+1 dimensions*, arXiv: math-ph: 2007.01740 68 pages.
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1. Séminaire, 5 mars 2020, *"Convergence of the form factor series in the Sinh-Gordon quantum field theory in 1+1 dimensions"*, Département de mathématiques, King's College, Londres, Royaume-Uni.

2. Conférence, 2-6 septembre 2019, *"Integrability, combinatorics, and representations"*, péninsule de Giens, France. *Rigorous approach to the XXZ chain at finite temperature*

3. Conférence, 22-26 juillet 2019, *"Workshop on Classical and Quantum Integrable Systems"*, Euler Institute, Saint Petersbourg, Russie. *Asymptotic behaviour of two-point dynamical correlation functions in the XXZ chain*

4. Conférence, 24-27 juin 2019, *"On mathematical aspects of interacting systems in low dimension"*, FernUniversität Hagen, Hagen, Allemagne. *The emergence of the $c = 1$ universality class in the XXZ spin 1/2 chain*

5. Séminaire, juin 2019, Université de Kaiserlautern, Département de Physique, Kaiserlautern, Allemagne. *On singularities of dynamic response functions in the massless regime of the XXZ chain: an exact approach*

6. Séminaire, mai 2019, Université de Tours-Orléan, Laboratoire Denis Poisson, Tours, France. *Asymptotic behaviour of two-point dynamical correlation functions in the XXZ chain.*

7. Conférence, 11-13 avril 2019 "Correlations in Integrable Quantum Many-Body Systems: Holger Frahm 60 Birthday" , Université de Wüppertal, Wüppertal, Allemagne. *Asymptotic behaviour of two-point dynamical correlation functions in the XXZ chain.*

8. École, 11-15 mars 2019, *"Coulomb Gas, Integrability and Painlevé Equations Gaz de Coulomb, intégrabilité et équations de Painlevé"*, CIRM, Université de Marseille, Marseille, France. *Infinite temperature limit of dynamical correlation functions in the XX0 chain.*

9. Séminaire, décembre 2018, Université de Wüppertal, Fachgruppe Physik, Wüppertal, Allemagne. *Unitarity of the separation of variables transform for the modular XXZ magnet.*

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11. Conférence, 3-7 septembre 2018, *"Correlations in Integrable Quantum Many-Body Systems"*, Université de Wüppertal, Wüppertal, Allemagne. *Dynamical correlation functions in the XXZ chain.*

12. Conférence, 23-28 juillet 2018, *"XIX International Congress on Mathematical Physics"*, Integrable systems session, Montréal, Canada. *Singularities of dynamic response functions in the massless regime of the XXZ chain*

13. Conférence, 11-12 juin 2018, *"Young Researchers Meeting on Integrable Systems"*, Université de Cergy-Pontoise, Neuville sur Oise, France. *On singularities of dynamic response functions in the massless regime of the XXZ chain: an exact approach*

14. Séminaire, mai 2018, Université de Wüppertal, Fachgruppe Physik, Wüppertal, Allemagne. *On singularities of dynamic response functions in the massless regime of the XXZ chain: an exact approach*

15. Conférence, 4-8 septembre 2017, *"Workshop on Moduli spaces of Curves, Integrable Systems and related subjects"*, Institut de Mathématiques de Bourgogne, Dijon, France. *On singularities of dynamic response functions in the massless regime of the XXZ chain*

16. Conférence, 17-21 juillet 2017, *"Integrability in Gauge and String Theory"*, École Normale Supérieure, Paris, France. *On singularities of dynamic response functions in the massless regime of the XXZ chain*

17. Conférence, 26 juin -14 juillet 2017, *"Integrability in Low-Dimensional Quantum Systems"*, MATRIX Workshop, Creswick Campus, Melbourne University, Australia. *On singularities of dynamic response functions in the massless regime of the XXZ chain*

18. Séminaire, décembre 2016, Université de Nancy-Lorraine, France. *Un bref panorama des systèmes intégrables.*

19. Séminaire, novembre 2016, IPhT, CEA Saclay, France. *Microscopic origin of the c=1 universality class.*

20. École, 12-23 septembre 2016, *"Quantum integrable systems, conformal field theories and stochastic processes"*, Institut d'Études Scientifiques de Cargèse, Cargèse, France. *Microscopic origin of the c=1 universality class.*

21. Conférence, 1-15 septembre 2016, *New Trends in Low-Dimensional Physics: Quantum Integrability and Applications*, Institute of Physics, Chinese Academy of Sciences, Beijing, China. *Microscopic origin of the c=1 universality class.*

22. Conférence, 22-26 août 2016, *"Recent advances in quantum integrable systems"*, Université de Genève, Genève, Suisse. *Condensation properties of Bethe roots in the XXZ chain.*

23. Conférence, 18-22 juillet 2016, *"26 StatPhys"*, Palais des congrés, Lyon, France. *Condensation properties of Bethe roots in the XXZ chain.*

24. Conférence, 4-8 juillet 2016, *"Topological Recursion and its Influence in Analysis, Geometry, and Topology"*, 2016 AMS von Neumann Symposium, Hilton Charlotte University Place, North Carolina États-Unis dAmérique. *Partition function of the sinh-model with varying interactions.*

25. Conférence, 11-15 avril 2016, *"Beta Ensembles: Universality, Integrability, and Asymptotics"*, Banff International Research Station, Banff, Alberta, Canada. *Aspects of universality in the XXZ spin* 1/2*-chain.*

26. Séminaire, Mars 2016, Université de Wüppertal, Fachgruppe Physik, Wüppertal, Allemagne. *Condensation properties of Bethe roots in the XXZ chain.*

27. Colloquium, décembre 2015, Université de Lyon, ENS de Lyon, Laboratoire de physique, Lyon, France. *Quo vadis systema integrabilis?*

28. Séminaire, octobre 2015, Université Pierre et Marie Curie, LPTHE, Paris, France. *Condensation des racines de Bethe de la chaîne XXZ.*

29. Conférence, 13-17 juillet 2015: *"Beyond Integrability: the Mathematics and Physics of Integrability and its Breaking"*, Centre de Recherches Mathématiques, Montréal, Canada, *Microscopic approach to a class of 1D quantum critical models.*

30. Conférence, 1-5 juin, 2015: *"Orthogonal Polynomials, Special Functions, and Applications: "Riemann–Hilbert problems and applications workshop""*, Gaithersburg, Maryland, États-Unis, *Recent developments in the large-N analysis of correlation functions in the quantum separation of variables method.*

31. Conférence, 10-12 avril 2015: *"34th Max-Born Symposium"*, Université de Wroclaw, Wroclaw, Pologne, *On the exponent of the field in the Sinh-Gordon model.*

32. Séminaire, mars 2015, Université de New-York, Courant Institute, New-York, NY, États-Unis d'Amérique, *Recent developments in the large-N analysis of the quantum separation of variables multiple integrals.*

33. Conférence, 2-6 mars 2015: *"Integrability vs Non-integrability in Statistical Mechanics Workshop"*, Simons Centre for Geometry and Physics, Stony-Brook, NY, États-Unis d'Amérique, *Large-N asymptotic expansion of multiple integrals related to the quantum separation of variables method.*

34. Séminaire, février 2015, IUPUI, département de mathématiques, Indianapolis, IN, États-Unis d'Amérique, *Recent developments in the large-N analysis of the quantum separation of variables multiple integrals.*

35. Conférence, 18-20 décembre 2014, *"Xmas workshop on moduli spaces and integrable systems"*, Universitá degli Studi di Genova, Gennes, Italie, *Recent developments in the large-N analysis of correlation functions in the quantum separation of variables method.*

36. Séminaire, décembre 2014, Maxwell Institute for Mathematical Sciences, Edinburgh, Écosse, *Form factors of the massive XXZ spin chain.*

37. Séminaire, décembre 2014, département de mathématiques, Glasgow, Écosse, *Recent developments in the large-N analysis of correlation functions in the quantum separation of variables method.*

38. Séminaire, novembre 2014, IPhT, CEA Saclay, France, *Large-N asymptotic expansion of multiple integrals related to the quantum separation of variables method.*

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40. Conférence, 15-18 septembre 2014: *"9th Bologna Workshop on CFT and Integrable Models"*, Bologna, Italie. *Large-N asymptotic expansion of multiple integrals related to the quantum separation of variables method.*

41. Conférence, 28 juin - 2 juillet 2014: *"Integrable Lattice Models and Quantum Field Theories"*, Bad Honnef, Allemagne. *Large-N asymptotic expansion of multiple integrals related to the quantum separation of variables method.*

42. Conférence, 23-27 juin 2014: *"Integrability and Combinatorics 2014", a conference in memory of Yuri Stroganov*, Presqu'île de Giens, France. *Large-N asymptotic expansion of multiple integrals related to the quantum separation of variables method.*

43. Séminaire, février 2014, Université de Wüppertal, Fachgruppe Physik, Wüppertal, Allemagne, *Asymptotic behaviour of multi-point correlation functions in massless one-dimensional models.*

44. Séminaire, décembre 2013, Université de Varsovie, Katedra Metod Matematycznych dla Fizyki, Pologne, *Problems in asymptotic analysis triggered by quantum integrable models.*

45. Conférence, 29 juin - juillet 2013: *"XXXIII Workshop on Geometric Methods in Physics"*, Bialowieza, Pologne. *Aspects of the quantum separation of variables for the Toda chain.*

46. Conférence, 12–16 juin 2013: *"XXIst International Conference on Integrable Systems and quantum symmetries"*, Prague, République tchéque. *Quantum separation of variables revisited - the Toda chain case.*

47. Séminaire, avril 2013, Université de Cergy-Pontoise, LPTM, France, *Combinatorics of Generalized Bethe equations.*

48. Série de séminaires, novembre 2012, IUPUI, Indianapolis, États-Unis. *Asymptotic analysis of quantum separation of variables issued multiple integrals.*

49. Conférence, 10–14 septembre 2012: *"Recent advances in quantum integrable systems"*, LAREMA, Angers, France. *Surface free energy of the open XXZ spin-1/2 chain.*

50. Conférence, 3–7 septembre 2012: *"Quantum integrable systems and geometry"*, Université d'Algave, Olhao, Portugal. *Asymptotic behavior of series of multiple integrals.*

51. Séminaire, juillet 2012, Université de York, York, Royaume-Uni. *Asymptotics of series of multiple integrals generalizing Fredholm series.*

52. Conférence, 24-30 juin 2012, *"XXXI Workshop on Geometric Methods in Physics"*, Bialowieza, Poland. *Asymptotic behavior of series of multiple integrals.*

53. Série de cours, juin 2012, LAPTH, Annecy-le-vieux, France. *Topics in the asymptotic behavior of correlation functions in one dimensional gapless models.*

54. Séminaire, juin 2012, LAPTH, Annecy-le-vieux, France. *Asymptotic behaviour of correlation functions.*

55. Conférence en l'honneur de Alexandre Its, 21–23 mai 2012: *"Integrable Systems and Random Matrices"*, Institut Henri Poincaré, Paris, France. *Asymptotics of series of multiple integrals generalizing Fredholm determinants.*

56. Séminaire, mai 2012, Université de Montpellier, Laboratoire Charles Coulomb, Montpellier, France. *Form factor approach to the correlation functions of critical models.*

57. Séminaire, mars 2012, Université Fran cois Rabelais-départment de physique, Tours, France. *Form factor approach to the asymptotic behavior of correlation functions in critical models.*

58. École d'hivers, 4–9 mars 2012: *Random matrices and integrable systems*, école de physique des Houches, Les Houches, France. *Asymptotic behavior of series of multiple integrals.*

59. Séminaire interne, janvier 2012, IMB, Dijon, Frane. *Asymptotic analysis of series of multiple integrals.*

60. Séminaire, novembre 2011, Harvard, Boston, États-Unis. *Asymptotic analysis of cyclic multiple integrals.*

61. Conférence, 7-9 septembre 2011: *Correlation functions of quantum integrable models*, IMB, Dijon, France. *Form factor approach to the correlation functions of critical models.*

62. Série de cours, sept.-déc. 2011, IUPUI, Indianapolis, États-Unis. *Large-distance and long-time asymptotics of correlation functions: non-free fermion case.*

63. Séminaire, juin 2011, Roma Tre, Rome, Italie. *Asymptotic behavior of two-point functions in gapless quantum integrable models.*

64. Séminaire, mars 2011, ITF, Amsterdam, Pays-Bas. *Asymptotic behavior of two-point functions in the large distance and long-time regime.*

65. Séminaire, jan. 2011, IUPUI, Indianapolis, IN, États-Unis. *Asymptotic behavior of correlation functions in integrable models.*

66. Séminaire, jan. 2011, KMMF, Varsovie, Pologne. *Correlation functions in integrable models.*

67. Séminaire, jov. 2010, LPTHE, Paris, France. *Large-distance/long-time asymptotics of two-point functions.*

68. Séminaire, oct. 2010, Yang's Institute for Theoretical Physics, Stony Brook, NY, États-Unis. *Large-distance/long-time asymptotics of two-point functions.*

69. École d'été, 27 juin - 17 juillet 2010: *"Finite-size technology in low-dimensional quantum systems (V)"*, Centro de Ciencias Pedro Pascuale, Benasque, Espagne. *Asymptotic behavior of the zero-temperature time-dependent correlation functions in the non-linear Schrödinger model.*

70. Conférence, 15–18 juin 2010: *"Recent advances in quantum integrable systems"*, LAPTH, Annecy, France. *Long-time/long-distance asymptotics of the two-point functions in the non-linear Schödinger model.*

71. Séminaire interne, mai 2010, DESY, Hamburg, Allemagne. *Full asymptotic series for the correlation functions of the non-linear Schrödinger model.*

72. Séminaire, fév 2010, Institut de Mathématiques de Bourgogne, Dijon, France. *Asymptotic behavior of oscillating cyclic integrals.*

73. Séminaire, juillet 2009, DESY, Hambourg, Allemagne. *Large size asymptotics of form factors in the massless XXZ chain.*

74. Série de cours, juin 2009, LAPTH, Annecy-le-vieux, France. *Introduction au calcul des blocs élmentaires de la chane XXZ avec bords diagonaux.*

75. Séminaire, jan. 2009, University of Copenhagen-Department of Mathematical Sciences, Copenhague, Danemark. *Asymptotic behaviour of the spin-spin correlators in the XXZ 1/2 spin chain.*

76. Séminaire, juillet 2008, Université de York-Department of Mathematics, York, Royaume-uni. *Asymptotic behavior of spin-spin correlation functions in the XXZ chain.*

77. Conférence, 30 juin –5 juillet 2008: *"Integrable quantum systems and solvable statistical models"*, Montréal QC, Canada. *Asymptotic behavior of determinants of structured matrices.*

78. Conférence, 11–14 sept. 2007: *Recent advances in quantum integrable systems"*, Annecy, France. *Correlation functions of the boundary XXZ model.*

79. Conférence, 23–27 juillet 2007: *"Infinite dimensional algebras and their application to quantum integrable systems"*, Faro, Portugal. *Emptiness formation probability of the boundary XXZ model.*

80. Séminaire, mars 2007, KMMF, Varsovie, Pologne. *Funkcje korelacji brzegowego modelu XXZ.*

81. Conférence, 11–15 sept. 2006, *"The Fourth Annual Meeting of the EU Network EUCLID"*, Lyon, France. *Correlation functions of open XXZ spin chains.*