CURRICULUM VITAE (updated June 2025)

Vyacheslav (Slava) RYCHKOV
Permanent Professor, Institut des Hautes Études Scientifiques, Bures-sur-Yvette, France
Born: 27.05.1975, Samara (Russia)
Citizenship: French, Italian, Russian
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RESEARCH INTERESTS:

Prof. Rychkov's research interests are extended and mostly concern problems of theoretical physics to which the methods of quantum field theory are applicable. He also made contributions to and has expertise in string theory and the AdS/CFT correspondence, as well as in phenomenology of the electroweak symmetry breaking and physics beyond the Standard Model. Presently, he is focussing on the strongly coupled quantum field theory, renormalization group, and conformal field theory. Starting in 2008, his works have relaunched the "conformal bootstrap" program, which has since become one the most active lines of research in theoretical high energy physics, with strong links to statistical physics and condensed matter physics. He used this method to obtain important results on the 3d Ising model - the problem which resisted efforts of theoretical physicists for many decades. He also worked on numerical techniques for solving massive strongly coupled theories, in the hope to find alternatives to the lattice Monte Carlo methods. In the last few years he worked on issues of general importance to the conformal bootstrap and the renormalization group, as well as was applying the general theory to concrete phase transitions.

CURRENT AND PAST APPOINTMENTS:

2017-present	Permanent Professor, Institut des Hautes Études Scientifiques, Bures-sur-Yvette, France
2016-2021	Mitsubishi Professor of High Eenergy Physics, Ecole Normale Supérieure Paris
2012-2018	Junior, then Senior Staff, Theoretical Physics Department, CERN, Switzerland
2009-2016	Associate (PR2), then Full (PR1) Professor, Université Pierre et Marie Curie, Paris
2007-09	Assistant Professor (Ricercatore), Scuola Normale Superiore, Pisa

EDUCATION:

2005-07	Postdoctoral Fellow, Scuola Normale Superiore, Pisa
2002-05	Postdoctoral Fellow, University of Amsterdam
2002	Ph.D., Princeton University, Mathematics Department
1996	B.S., M.S., Moscow Institute of Physics and Technology

LONG-TERM VISITS:

2025	Jacques Solvay International Physics Chair, Solvay Institute, ULB, Brussels
2024	EPFL, Switzerland
2012	Columbia University, New York
2011	CERN
2008	Institute for Advanced Studies, Princeton
2008	Visiting Professor, University of Warsaw
2007	Invited Professor, Ecole Normale Supérieure
2006	CERN

HONORS:

2025	Jacques Solvay International Chair in Physics
2019	Grand Prix Mergier-Bourdeix of l'Academie des Sciences (France)
2014	New Horizons in Physics Prize (citation: *for developing new techniques in conformal field theory, reviving the conformal bootstrap program for constraining the spectrum of operators and the structure constants in 3D and 4D CFT's*)
2012-17	Junior Member of l'Institut Universitaire de France
1995	First Prize, International Mathematics Competition for University Students, Plovdiv, Bulgaria

CONFERENCE ORGANIZATION:

2023, 2025	"Fuzzy sphere meets bootstrap", workshop at SCGP, Stony Brook and at the IHES
2019,21,22,23,24	Annual Bootstrap collaboration meeting(Perimeter,Paris/virtual,Porto,São Paulo,Madrid)
2021	Bootstat, a program at Institut Pascal, Paris, and virtual
2018	Workshop "Conformal Invariance and Harmonic Analysis", IPhT-Saclay
2018	Workshop "Hamiltonian methods in QFT", IHES, Bures-sur-Yvette
2016	Program "CFTs and RG Flows in Dimensions $d > 2$", GGI Florence
2012-15	"Back to the Bootstrap" workshop series (Perimeter Institute → CERN → Porto University → Weizmann Institute)
2014	Program "New methods in non-perturbative QFT", KITP Santa Barbara
2011,12	"Higgs Hunting" conferences, LAL Orsay, Paris
2008	"Workshop on Monte Carlo, Physics, and Simulations at LHC", Frascati, Italy
2006	Conference "The quest for unification: the theory confronts experiment", Pisa, Italy

GRANTS:

2025-	Simons Collaboration on the Probabilistic Paths to QFT, PI
2016-2025	Simons Collaboration on the Non-Perturbative Bootstrap, Vice-Director
2014-19	Member of the Swiss National Center of Competence in Research SwissMAP
2011-12	Research Involvement Prize (PIR), Université Paris 6
2011	Project leader, Emergence UPMC grant "Trans-planckian scattering"
2009-14	Member of the European research program "Unification in the LHC Era"
2008-12	Member of the Swiss research program "Theory and phenomenology of electroweak symmetry breaking"
2005-08	Member of the European research program "The quest for unification: the theory confronts experiment"
2005-09	Member of the Italian research program "Physics beyond the Standard Model"
2006-09	Member of the Italian research program "Beyond the Standard Model Physics in the era of the Large Hadron Collider"

SUPERVISION:

Postdocs:

Rajeev Erramilli (2023-)
Junchen Rong (2021-24), now postdoc at Ecole Polytechnique
Aleix Gimenez Grau (2022-24, now in data science industry),
Marten Reehorst(2020-21), now postdoc at Kings College London
Emilio Trevisani (2017-20, now CNRS Researcher at LPTHE Paris)
Apratim Kaviraj (2017-20, now faculty at IIT Kanpur)
Miguel Paulos (2012-17, now CNRS Researcher at LPENS, Ecole Normale Supérieure)
Balt van Rees (2013-15, now Professor at Ecole Polytechnique, Paris)
Sheer El-Showk (2011-15 → CNRS Researcher at LPTHE Paris 6 → Anthropic AI)
Alfredo Urbano (2011-12, now Associate Professor at Roma La Sapienza)

PhD Students:

Nikolay Ebel (2022-)
Benoit Sirois (PhD ENS 2023, now professor at a preparatory school in Quebec)
Jiaxin Qiao (PhD ENS 2022, now postdoc at EPFL)
Bernardo Zan (PhD EPFL 2019, now permanent researcher at the University of Genova)
Lorenzo Vitale (PhD EPFL 2016, after postdoc at Boston University is now in financial industry)
Matthijs Hogervorst (PhD ENS 2015 → postdocs at Stony Brook, Perimeter, EPFL → industry)
Axel Orgogozo (2011-2013, now in financial industry)
Alessandro Vichi (PhD EPFL 2011, now Associate Professor at University of Pisa)
Brando Bellazzini (PhD SNS 2009, now faculty at CEA Saclay)
Supervised several other PhD students at SNS Pisa, while not being an official coadvisor:
Paolo Lodone, Alvise Varagnolo, Roberto Franceschini, Leone Cavicchia

Undergraduate Students:

Bing-Xin Lao (Ecole Normale Supérieur, master internship, 2023, now PhD student at Princeton)
Quentin Lamouret (Ecole Normale Supérieur, master internship, 2022)
Jiaxin Qiao (Ecole Normale Supérieur, master internships, 2016-18)
Pierre Yvernay (ENSTA ParisTech, M1 internship, 2015; M2 internship 2017)
Zhong Ming Tan (ENS M2 internship, 2015)
Charles Cosnier-Horeau (ENS M2 internship, 2015)
Xinyi Chen (Ecole Polytechnique/ETH M2 internship, 2013)
Matthijs Hogervorst (ENS M2 internship, 2012)
Valentin Reys (ENS M2 internship, 2010)
Raphael Belliard (ENS M1 internship, 2010)
Francesco Caracciolo (SNS Pisa, Tesi di Laurea Specialistica, 2009)
Marco Farina (SNS Pisa, Tesi di Laurea Specialistica, 2008)

INVITED LECTURES AT PHD SCHOOLS:

2024 Thessaloniki, Greece
2022 Cortona, Italy + Lyon, France
2019 TASI, Boulder, Colorado
2016 Les Houches + ICTP, Trieste + Galileo Galilei Institute (Florence) + Okinawa (Japan)
2015 DESY Hamburg
2014 Cargèse
2013 Padova, Italy + CERN + NORDITA, Stockholm
2012 EPFL Lausanne + Zuoz, Switzerland
2011 ETH Zurich
2009-11 Amsterdam-Paris-Brussels School
2009 De Bergse Bossen, The Netherlands
2006 Parma, Italy

IHES COURSES:

2022 Random Field Ising Model and Parisi-Sourlas Supersymmetry
2019 Lorentzian methods in conformal field theory (course given at Ipht Saclay)

UNDERGRADUATE TEACHING:

2016-19 ENS, M2 level - 34 hours/year
2011-12 UPMC, ENS (L2, M2 level) - 191.5 hours
2010-11 UPMC, ENS (L2, M2 level) - 141.5 hours
2009-10 UPMC, ENS (L1, M2 level) - 159.5 hours
2008-09 SNS, Pisa (L1, M1 level) - 70 hours
2004-05 University of Amsterdam (M2 level) - 40 hours
1999-2002 Princeton University, Teaching Assistant

OTHER PROFESSIONAL RESPONSIBILITIES:

2021-25 Member of CNRS Theoretical Physics Hiring Committee (Section 02 CoNRS)
2023-present Bernoulli Institute (EPFL) Scientific Committee, Member
2019-present Editor, SciPost Physics
2020 Editor, Communications in Mathematical Physics
2016-17 Editor, Journal of High Energy Physics
2017-18 Member, Scientific Council of Physics Department, ENS Paris, France
2011-16 Member, Expert Committee at Paris VI, Section 29 "Elementary Constituents"
2012 president, selection committee for an associate professor at UPMC
2015 member, selection committee for an associate professor at UPMC
2015 member, selection committee for an assistant professor, EPFL Lausanne
2016 member, selection committee for two assistant professors, NORDITA, Stockholm
Participated in about 10 PhD committees
Refereeing duties (mostly JHEP, SciPost, Phys.Rev.D, Phys.Rev.Lett., Nature)

OUTREACH:

2020 Talk for "Amis de l'IHES"
2019 Talk for the "Cercle des mécènes, IHES"
2017 Interview for an article about the conformal bootstrap in Quanta
2016 Interview for an article about the conformal bootstrap in New Scientist
2016 Seminaire du Directeur, Ecole Normale Superieure, Paris, France
2016 Interviews for a series of articles about CERN Theory Department
2014 Interview to Radio Svoboda following the New Horizons Prize
2013 Origins - Researcher's Night at CERN
2011 Interviews to science popularization magazines (Science et Vie, New Scientist) following the Higgs boson discovery
2010 FRIF presentation to Paris VI students about particle physics
2007,08 Lectures for high school students at the Scuola Normale Superiore orientation course, San Miniato, Italy

INVITED SEMINAR TALKS (colloquia only):

2025 Theory Colloquium, Physics and Astronomy Department, Catholic University Leuven
2025 Theory Colloquium, Physics and Astronomy Department, University of Ghent
2025 Solvay Chair Inaugural Lecture, ULB, Brussels
2024 DAMTP Colloquium, Comabridge, UK
2023 Mathematics Department Colloquium, King's College London, UK
2023 Physics Department Colloquium, Ben-Gurion University, Israel
2023 The interdisciplinary contribution of Giorgio Parisi to theoretical physics, Roma La Sapienza Universit
2022 Theory Colloquium, Physics Department, University of Turin, Italy
2022 Levi-Civita Colloquium, Center for Mathematics and Theoretical Physics, Univ. Rome II, Italy
2021 CERN Theory colloquium, Geneva, Switzerland
2020 Physics Department Colloquium, Boston University, Boston, Massachusetts, USA
2020 Physics Department Colloquium, Harvard University, Cambridge, Massachusetts, USA
2019 Dublin theoretical physics colloquium, Trinity College Dublin, Ireland
2019 Physics Department Colloquium, University of Crete, Grece
2019 Ortvay Colloquium, Budapest
2019 Simons Foundation Colloquium, New York
2019 Albanova and Nordita Physics Colloquium, Stockholm
2019 ETH Zurich
2018 Bekenstein Memorial Lecture, Hebrew University of Jerusalem
2018 Merton College, Oxford, Occam lecture
2017 University of Geneva, Physics Department Theory Colloquium
2016 Yale University, New Haven, USA
2016 Brown University, Providence, USA
2015 Paul Scherrer Institute Colloquium, Villigen, Switzerland
2015 Max Planck Instutute Colloquium, Munich
2015 Karlsruhe Institute of Technology, Physics Department Colloquium
2014 Princeton University, Physics Department, Hamilton Colloquium
2014 Cambridge University, DAMTP HEP-GR Colloquium
2014 Ecole Normale Supérieure, Physics Department Seminar
2014 CERN Theory Department Colloquium
2013 University of Geneva, Physics Department Colloquium
2013 University of Porto, Physics Department Colloquium
2011 CERN Theory Department Colloquium
2010 LAL Orsay
2008 LPNHE Paris
2006 CERN Theory Department Colloquium

+ hundreds of other invited talks

INVITED CONFERENCE TALKS (major international events):

2025 STATPHYS 29 (Florence) - invited session talk
2018 ICMP (Montreal) - plenary
2016 ERG (Trieste) - plenary
2016 Strings (Beijing) - plenary
2013 String-Math (Stony Brook) - plenary
2013 STATPHYS 25 (Seoul) - invited session talk
2013 Strings (Seoul) - plenary
2011 International Europhysics Conference on High Energy Physics (EPS HEP), Grenoble - plenary
2011 Planck (Lisbon) - plenary
2010 Planck (CERN) - plenary
2009 Planck (Padova) - plenary
2005 Strings (Toronto) - plenary

INVITED CONFERENCE TALKS (workshops):

2024 Gapless states of quantum matter, KITP Santa Barbara
2023 Renormalization Day, Ecole Polytechnique, France
2023 Quantum information theory - tensor networks, Madrid, Spain
2023 Universality in Condensed Matter and Statistical Mechanics, University Roma Tre, Rome, Italy
2022 Entanglement Scaling and Criticality with Tensor Networks (EPFL Lausanne, Switzerland)
2022 Annual Bootstrap Collaboration Meeting (Simons Foundation, New York City)
2022 Bootstrapping Nature: Non-perturbative Approaches to Critical Phenomena (Florence, Italy)
2022 Conformal field theory and quantum many-body physics (Montréal, Canada)
2022 The Renormalization Group (Oberwolfach, Germany)
2021 Exact quantisation and applications to condensed matter physics (SISSA, Trieste, Italy)
2021 Paths to Quantum Field Theory (Durham, UK)
2020 Systèmes Aléatoires Inhomogènes. Emergent CFTs in statistical mechanics (Institut Curie, Paris)
2019 Annual Bootstrap Collaboration Meeting (Simons Foundation, New York City)
2018 Annual Bootstrap Collaboration Meeting (Simons Foundation, New York City)
2018 Quantum field theory, renormalisation and stochastic partial differential equations (Isaac Newton Insti
2018 Critical Phenomena in Statistical Mechanics and Quantum Field Theory (Princeton University)
2018 Quantum Many-Body Methods in Condensed Matter Systems (Research Center Julich, Germany)
2018 Renormalisation in quantum field theory (Isaac Newton Institute, Cambridge, UK)
2018 Bootstrap (Caltech, USA)
2018 Rencontres de Physique des Particules (Paris, France)
2018 Bootstrap Approach to Conformal Field Theories and Applications (OIST, Japan)
2018 Beyond Mean Field Theory (Rome, Italy)
2017 Advances in Mathematical and Theoretical Physics (Rome, Italy)
2017 New developments in CFT in $d > 2$ (Princeton, USA)
2015 SwissMAP general meeting (Engelberg, Switzerland)
2015 Journées de Physique Statistique (Paris)
2014 Annual High Energy Theory Meeting, Durham, UK
2014 Conformal Symmetry in Four-Dimensional Field Theories (Regensburg, Germany)
2014 Quantum Fields Beyond Perturbation Theory (KITP)
2014 Workshop on High Precision LHC Physics in Honor of Zoltan Kunszt (Zurich)
2013 Exact Results in SUSY Gauge Theories and Integrable Systems (Tokyo)
2013 A Passion for Particles - Conference in Honor of Riccardo Barbieri (Pisa)
2012 Strongly Coupled Physics Beyond the Standard Model (Trieste)
2012 Latest News on the Fermi Scale (GGI Florence)
2011 Scalars (Warsaw)
2011 Advanced Conformal Field Theory and Its Applications (Paris)

2011 The First Year of the LHC (KITP, Santa Barbara)
2011 Hierarchies and Symmetries (Paris)
2010 Higgs Hunting (Orsay)
2010 Challenges for Precision Physics at the LHC (Paris)
2010 ICHEP, String Theory Parallel Session (Paris)
2010 CMS France Physics Meeting (Saclay)
2009 4th Sakharov Conference (Moscow)
2008 Gravitational Scattering, Black Holes And The Information Paradox (Paris)
2008 Black Holes in General Relativity and String Theory (Veli Lošinj, Croatia)
2008 4th Workshop on Monte Carlo, Simulations, and Physics at LHC, Frascati, Italy
2007 Supersymmetry, Supergravity, Superstrings (Pisa)
2005 3rd Sakharov Conference on Theoretical Physics (Moscow)
2005 Algebraic Geometry and Topological Strings (Lisbon, Portugal)

PUBLICATIONS: (in Prof. Rychkov's field of research, the authors are usually alphabetically ordered, in which case all of them are assumed to have contributed equally to the paper; exceptions are noted below)

1. **Tensor Renormalization Group Meets Computer Assistance** N. Ebel, T. Kennedy, S. Rychkov, [arXiv:2506.03247]
2. **Disturbing news about the $d = 2 + \epsilon$ expansion**
   F. De Cesare, S. Rychkov, PTEP, to appear, [arXiv:2505.21611]
3. **Exact Diagonalization, Matrix Product States and Conformal Perturbation Theory Study of a 3D Ising Fuzzy Sphere Model**
   A. M. Läuchli, L. Herviou, P.H. Wilhelm, S. Rychkov [arXiv:2504.00842] (N.B. cond-mat author order)
4. **Transfer Matrix and Lattice Dilatation Operator for High-Quality Fixed Points in Tensor Network Renormalization Group** N. Ebel, T. Kennedy, S. Rychkov [arXiv:2409.13012]
5. **Rotations, Negative Eigenvalues, and Newton Method in Tensor Network Renormalization Group** N. Ebel, T. Kennedy, S. Rychkov [arXiv:2408.10312]
6. **Bootstrapping frustrated magnets: the fate of the chiral $O(N)O(2)$ universality class**
   M. Reehorst, S. Rychkov, B. Sirois, B. C. van Rees [arXiv:2405.19411]
7. **New Developments in the Numerical Conformal Bootstrap**
   S. Rychkov, N. Su, Rev.Mod.Phys. 96 (2024) 045004 [arXiv:2311.15844]
8. **Non-trivial fixed point of a ψ^4_d fermionic theory, II. Anomalous exponent and scaling operators**
   A. Giuliani, V. Mastropietro, S. Rychkov, G. Scola [arXiv:2404.14904]
9. **Scale without Conformal Invariance in Dipolar Ferromagnets**
   A. Gimenez-Grau, Y. Nakayama, S. Rychkov Phys.Rev.B 110 (2024) 024421 [arXiv:2309.02514]
10. **3D Ising CFT and Exact Diagonalization on Icosahedron**
    B. Lao, S. Rychkov [arXiv:2307.02540] SciPost Phys. 15 (2023) 243
11. **Four Lectures on the Random Field Ising Model, Parisi-Sourlas Supersymmetry, and Dimensional Reduction**
    S. Rychkov [arXiv:2303.09654], Springer Briefs (2023)
12. **Twist accumulation in conformal field theory. A rigorous approach to the lightcone bootstrap**
    S. Pal, J. Qiao, S. Rychkov [arXiv:2212.04893] Communications of Mathematical Physics (2022)
13. **Tensor Renormalization Group at Low Temperatures: Discontinuity Fixed Point**
    T. Kennedy, S. Rychkov [arXiv:2210.06669] , Annales Henri Poincaré (2023)
14. **The fate of Parisi-Sourlas supersymmetry in Random Field models**
    A. Kaviraj, S. Rychkov, E. Trevisani [arXiv:2112.06942] Phys.Rev.Lett. 129 (2022) 045701
15. **Tensor RG approach to high-temperature fixed point**
    T. Kennedy, S. Rychkov [arXiv:2107.11464] J.Statist.Phys. 187 (2022) 33
16. **Navigator Function for the Conformal Bootstrap**
    M. Reehorst, S. Rychkov, D. Simmons-Duffin, B. Sirois, N. Su, B. van Rees
    [arXiv:2104.09518] SciPost Phys. 11 (2021) 072
17. **Distributions in CFT II. Minkowski Space**
    P. Kravchuk, J. Qiao, S. Rychkov [arXiv:2104.02090] JHEP 08 (2021) 094
18. **"Random Field Ising Model and Parisi-Sourlas Supersymmetry II. Renormalization Group"**
    A. Kaviraj, S. Rychkov, E. Trevisani JHEP 03 (2021) 219 [arXiv:2009.10087]

19. **"Gentle introduction to rigorous Renormalization Group: a worked fermionic example"**
A. Giuliani, V. Mastropietro, S. Rychkov JHEP 01 (2021) 026 [arXiv:2008.04361]
20. **"3D Ising Model: a view from the Conformal Bootstrap Island"**
S. Rychkov Comptes Rendus Physique 21 (2020) 185 [arXiv:2007.14315]
21. **"Distributions in CFT I. Cross-Ratio Space"**
P. Kravchuk, J. Qiao, S. Rychkov JHEP 2005 (2020) 137 [arXiv:2001.08778]
22. **"Conformal bootstrap and the λ-point specific heat experimental anomaly"**,
S. Rychkov
Journal Club for Condensed Matter Physics, January 2020. DOI: 10.36471/JCCM_January_2020_02
23. **"Random Field Ising Model and Parisi-Sourlas Supersymmetry I. Supersymmetric CFT"**
A. Kaviraj, S. Rychkov, E. Trevisani JHEP 2004 (2020) 090 [arXiv:1912.01617]
24. **"Deligne Categories in Lattice Models and Quantum Field Theory, or Making Sense of O(N) Symmetry with Non-integer N"**
D. J. Binder, S. Rychkov JHEP 2004 (2020) 117 [arXiv:1911.07895]
25. **"General Properties of Multiscalar RG Flows in $d = 4 - \epsilon$"**
S. Rychkov, A. Stergiou SciPost Phys. 6 (2019) 008 [arXiv:1810.10541]
26. **"Walking, Weak first-order transitions, and Complex CFTs II. Two-dimensional Potts model at $Q \geqslant 4$"** V. Gorbenko, S. Rychkov, B. Zan SciPost Phys. 5 (2018) 050 [arXiv:1808.04380]
27. **"Walking, Weak first-order transitions, and Complex CFTs"**
V. Gorbenko, S. Rychkov, B. Zan JHEP 1810 (2018) 108 [arXiv:1807.11512]
28. **"The Conformal Bootstrap: Theory, Numerical Techniques, and Applications"**
D. Poland, S. Rychkov, A. Vichi Rev.Mod.Phys. 91 (2019) 015002 [arXiv:1805.04405]
29. **"A structural test for the conformal invariance of the critical 3d Ising model"**
J.M. Viana Parente Lopes, S. Meneses, J. Penedones, S. Rychkov, P. Yvernay
JHEP 1904 (2019) 115, arXiv:1802.02319
30. **"A tauberian theorem for the conformal bootstrap"**
J.Qiao, S. Rychkov, JHEP 1712 (2017) 119 [arXiv:1709.00008]
31. **"NLO Renormalization in the Hamiltonian Truncation,"**
J. Elias-Miro, S. Rychkov, L. G. Vitale Phys.Rev. D96 (2017) 065024 [arXiv:1706.09929]
32. **"High-Precision Calculations in Strongly Coupled Quantum Field Theory with Next-to-Leading-Order Renormalized Hamiltonian Truncation,"**
J. Elias-Miro, S. Rychkov, L. G. Vitale JHEP 1710 (2017) 213, [arXiv:1706.06121]
33. **"Cut-touching linear functionals in the conformal bootstrap,"**
J.Qiao, S. Rychkov, JHEP 1706 (2017) 076, [arXiv:1705.01357]
34. **"A scaling theory for the long-range to short-range crossover and an infrared duality,"**
C. Behan, L. Rastelli, S. Rychkov, B. Zan, J. Phys. A 50 (2017) 354002, [arXiv:1703.05325]
35. **"Long-range critical exponents near the short-range crossover,"**
C. Behan, L. Rastelli, S. Rychkov, and B. Zan, Phys. Rev. Lett. 118 (2017) 241601, [arXiv:1703.03430]
36. **"Non-gaussianity of the critical 3d Ising model,"**
S. Rychkov, D. Simmons-Duffin and B. Zan, SciPost Phys. **2**, no. 1, 001 (2017) [arXiv:1612.02436].
37. **"EPFL Lectures on Conformal Field Theory in $D \geqslant 3$ Dimensions"**
S. Rychkov arXiv:1601.05000, published as SpringerBriefs in Physics.
38. **"Hamiltonian truncation study of the ϕ^4 theory in two dimensions. II. The $\mathbb{Z}_2$ -broken phase and the Chang duality"**
S. Rychkov, L. G. Vitale Phys.Rev. D93 (2016) 065014, arXiv:1512.00493
39. **"Unitarity violation at the Wilson-Fisher fixed point in $4 - \epsilon$ dimensions"**
M. Hogervorst, S. Rychkov, B. C. van Rees Phys.Rev. D93 (2016) 125025, arXiv:1512.00013
40. **"Remarks on the Convergence Properties of the Conformal Block Expansion"**
S. Rychkov, P. Yvernay Phys.Lett. B753 (2016) 682-686, arXiv:1510.08486
41. **"Conformal Invariance in the Long-Range Ising Model"**
M. F. Paulos, S. Rychkov, B. C. van Rees, B. Zan Nucl.Phys. B902 (2016) 246-29, arXiv:1509.00008
42. **"The Epsilon-Expansion from Conformal Field Theory"**
S. Rychkov and Z. M. Tan. J. Phys. A **48** (2015) 29FT01, arXiv:1505.00963
43. **"Hamiltonian truncation study of the ϕ^4 theory in two dimensions"**
S. Rychkov and L. G. Vitale. arXiv:1412.3460 Phys. Rev. D **91**, no. 8, 085011 (2015)
44. **"Truncated conformal space approach in d dimensions: A cheap alternative to lattice field theory?"**
M. Hogervorst, S. Rychkov and B. C. van Rees. arXiv:1409.1581 Phys. Rev. D **91**, 025005 (2015)

45. **"Solving the 3d Ising Model with the Conformal Bootstrap II. c-Minimization and Precise Critical Exponents"**
S. El-Showk, M. F. Paulos, D. Poland, S. Rychkov, D. Simmons-Duffin and A. Vichi.
arXiv:1403.4545 J. Stat. Phys. **157**, 869 (2014)
46. **"Conformal Field Theories in Fractional Dimensions"**
S. El-Showk, M. Paulos, D. Poland, S. Rychkov, D. Simmons-Duffin and A. Vichi.
arXiv:1309.5089 Phys. Rev. Lett. **112**, 141601 (2014)
47. **"Diagonal Limit for Conformal Blocks in d Dimensions"**
M. Hogervorst, H. Osborn and S. Rychkov. arXiv:1305.1321, JHEP **1308**, 014 (2013)
48. **"Radial Coordinates for Conformal Blocks"**
M. Hogervorst and S. Rychkov. arXiv:1303.1111 Phys. Rev. D **87**, 106004 (2013)
49. **"The S parameter for a Light Composite Higgs: a Dispersion Relation Approach"**
A. Orgogozo and S. Rychkov. arXiv:1211.5543 [hep-ph] JHEP **1306**, 014 (2013)
50. **"OPE Convergence in Conformal Field Theory"**
D. Pappadopulo, S. Rychkov, J. Espin and R. Rattazzi.
arXiv:1208.6449 Phys. Rev. D **86**, 105043 (2012)
51. **"Solving the 3D Ising Model with the Conformal Bootstrap"**
S. El-Showk, M. F. Paulos, D. Poland, S. Rychkov, D. Simmons-Duffin and A. Vichi.
arXiv:1203.6064 Phys. Rev. D **86**, 025022 (2012)
52. **"What if the Higgs couplings to W and Z bosons are larger than in the Standard Model?"**
A. Falkowski, S. Rychkov and A. Urbano. arXiv:1202.1532 [hep-ph] JHEP **1204**, 073 (2012)
53. **"Exploring T and S parameters in Vector Meson Dominance Models of Strong Electroweak Symmetry Breaking"**
A. Orgogozo and S. Rychkov. arXiv:1111.3534 [hep-ph] JHEP **1203**, 046 (2012)
54. **"Conformal Bootstrap in Three Dimensions?"**
S. Rychkov, arXiv:1111.2115
55. **"Spinning Conformal Blocks"**
M. S. Costa, J. Penedones, D. Poland and S. Rychkov. arXiv:1109.6321 JHEP **1111**, 154 (2011)
56. **"EWSB Theory on the Eve of Higgs Boson Exclusion/Discovery"**
S. Rychkov. PoS EPS **-HEP2011**, 029 (2011)
57. **"Spinning Conformal Correlators"**
M. S. Costa, J. Penedones, D. Poland and S. Rychkov. arXiv:1107.3554 JHEP **1111**, 071 (2011)
58. **"What Maxwell Theory in $D \neq 4$ teaches us about scale and conformal invariance"**
S. El-Showk, Y. Nakayama and S. Rychkov. arXiv:1101.5385 Nucl. Phys. B **848**, 578 (2011)
59. **"Bounds in 4D Conformal Field Theories with Global Symmetry"**
R. Rattazzi, S. Rychkov and A. Vichi.
arXiv:1009.5985 J. Phys. A **44**, 035402 (2011)
60. **"Central Charge Bounds in 4D Conformal Field Theory"**
R. Rattazzi, S. Rychkov and A. Vichi.
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