

Submittee: David Brydges

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Title: The Renormalisation Group and Statistical Mechanics

Event Type: Conference-Workshop

Location:

UBC

Dates:

Jul 6 - 10 2009

Topic:

Mathematical Physics and Probability

Methodology:

24 50 minute lectures (one cancellation not replaced) 6 on each of four days One day off for discussions, collaborations and relaxation

Objectives Achieved:

review of latest progress recruiting new people to our range of problems by inviting people with different points of view

Scientific Highlights:

Existence of finite temperature crystals in the sense of the Cauchy Born problem and progress in self-avoiding walk in various dimensions including four Existence of delocalised states in three dimensions in the Zirnbauer supersymmetric model that captures key features of the Anderson model Existence of a complete renormalisation group trajectory joining ultraviolet to infrared fixed points in a fractional dimensional field theory Analyticity in the coupling constant and correlations of Fermi systems which are not too degenerate Insights into the failure of Gibbsian property in certain renormalisation group transformations

Organizers:

Brydges, David, UBC Feldman, Joel, UBC van Enter, Aernout, UBC

Speakers:

Abstracts and title in uploaded file Abdelmalek Abdesselam Mathematics University of Virginia Stefan Adams Mathematics University of Warwick Giuseppe Benfatto Mathematics Univ. of Roma "Tor Vergata" Marek Biskup Mathematics University of California in Los Angeles Pavel

Bleher Mathematics Indiana University-Purdue University Indianapolis Codina
Cotar Mathematics Technische Universität München Jonathan Dimock Mathematics SUNY at
Buffalo Margherita Disertori Laboratoire de Mathématiques Raphaël Salem Université de
Rouen Paul Federbush Mathematics university of michigan Takashi Hara Faculty of
Mathematics Kyushu University Tom Kennedy Mathematics Univ. of Arizona Christof
Kuelske Mathematics University Groningen Arnaud Leny Laboratoire de Mathématiques Université
de Paris-Sud 11 Vieri Mastropietro Mathematics II university of Rome Pronob
Mitter Physique CNRS-Université Montpellier 2 Vincent Rivasseau Laboratoire de physique
théorique Université Paris-Sud Yvan Saint-Aubin Département de mathématiques et de
statistique Université de Montréal Manfred Salmhofer Theoretical Physics Heidelberg University
Vladas Sidoravicius Centrum voor Wiskunde en Informatica Gordon Slade Mathematics University
of British Columbia Rongfeng Sun Math National University of Singapore aernout van
enter Mathematics university of Groningen Mei Yin Mathematics University of Arizona

Links:

<http://www.math.ubc.ca/~db5d/RG-workshop09/index.htm>

File Uploads:

Additional Upload 1: http://www.pims.math.ca/files/final_report/all-abstracts.pdf
