



## Workshop Quantum theory's influences on topology, analysis and geometry

**ZEIT:**

20.5.2013 - 1.6.2013

**ORT:**

University of Copenhagen

This two week program focuses on areas where quantum theory has inspired a confluence of ideas from renormalisation theory, differential K-theory, topology, geometry and index theory. The main aim of the meeting is to bring together researchers working from various points of view on new methods and their applications with a focus on instructional lectures for junior researchers, both mathematicians and physicists. We therefore strongly encourage junior researchers to attend.

Here is a list of confirmed lecturers and tentative topics:

Christian Baer (Potsdam): Quantum fields on Lorentzian manifolds

Owen Gwilliam (Berkeley): The Batalin-Vilkovisky formalism in quantum field theory

Dominique Manchon (Clermont-Ferrand): Bialgebras and Hopf algebras applied to renormalization

Thomas Schick (Goettingen): Survey lectures on differential K-theory

Simon Scott (London): Log-TQFT and Exotic Torsion

Stefan Weinzierl (Mainz): How multiple zeta values arise in Feynman integrals

Elmar Schrohe (Hannover): Index theory of boundary value problems

Bin Zhang (Chengdu): Cones, subdivisions and applications

Participants can apply for financial support towards local expenses, with preference given to junior participants.

The support will be DKK 500 daily (currently about 74 Euros or \$96).

Unfortunately, we cannot cover travel expenses. If you wish to apply for support, please indicate this on the registration form. Please keep in mind that depending on the amount of support available, we may be able to offer only one week of support per participant. The deadline for applying for support is March 15, 2013.

**Kontakt:**

Humboldt-Universität zu Berlin . Institut für Mathematik  
SFB 647 . Unter den Linden 6 . 10099 Berlin  
Tel. +49 30 2093 1804 . Fax. +49 30 2093 2727  
sfb647@math.hu-berlin.de

[www.raumzeitmaterie.de](http://www.raumzeitmaterie.de)

Please do not hesitate to pass on the information to colleagues of yours who might be interested. Looking forward to seeing you in Copenhagen,

Best regards,

Sylvie Paycha

On behalf of the organising committee

Alan Carey, Charlotte Kristjansen, Ryszard Nest, Sylvie Paycha and Steven Rosenberg.

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