SFB-Seminar "Symplectic Field Theory"

ZEIT:
24.5.2016, 15:00 Uhr - 18:00 Uhr

ORT:
IRIS-Haus 2.07, HU Berlin

PROGRAMM:

15:00 - 15:30   Kaffeepause

15:30 - 16:30   **Prof. Dr. Chris Wendl**

A sketch of symplectic field theory and applications
Symplectic field theory (SFT) was introduced by Eliashberg-Givental-Hofer in 2000 as a TQFT-type framework for defining invariants of symplectic and contact manifolds by counting psequdoholomorphic curves. Special cases of SFT in certain settings include the Gromov-Witten invariants and Floer homology of closed symplectic manifolds, as well as various analogues of these in contact geometry. In this talk, I will give a general introduction for non-specialists, including some basic notions about contact manifolds, symplectic cobordisms and pseudoholomorphic curves, the algebraic structure of SFT, and some applications to the problem of symplectic fillability (including joint work with Janko Latschev).

16:30 - 17:00   Kaffeepause

17:00 - 18:00   **Prof. Dr. Kai Zehmisch**

Diffeomorphism type of symplectically aspherical fillings
Symplectically aspherical fillings of simply connected contact manifolds that are subcritically Stein fillable are unique up to diffeomorphism. In my talk I will present a proof in dimension at least five and indicate generalisations to classes of contact manifolds with non trivial fundamental groups. This is joint work with Kilian

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Barth und Hansjörg Geiges.

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