



## SFB-Seminar (Teilprojekt C1)

### ZEIT:

12.5.2015, 15:00 Uhr - 18:00 Uhr

### ORT:

Freie Universität Berlin  
Konrad-Zuse-Zentrum für Informationstechnik, Hörsaal ZIB  
Takustr. 7  
14195 Berlin-Dahlem

### PROGRAMM:

15:00 - 15:30 Kaffee Pause

15:30 - 16:30 **Prof. Dr. Holger Reich (FU)**

#### **The Farrell-Jones conjecture - Introduction and Overview**

The Whitehead group  $Wh(G)$  of a group  $G$  and its (higher) analogues defined using algebraic K-theory or L-theory play an important role in geometric topology. This will be made explicit in the second talk. There are vanishing conjectures in the case where  $G$  is torsionfree. For groups containing torsion the Farrell-Jones conjecture predicts what should happen in terms of group homology. The talk will give a gentle introduction to this circle of ideas and survey the current status of the conjectures.

16:30 - 17:00 Kaffee Pause

17:00 - 18:00 **Prof. Dr. Arthur Bartels (Universität Münster)**

#### **Existence and uniqueness of aspherical manifolds with hyperbolic fundamental group**

Via surgery the Farrell-Jones Conjecture has applications to the classification of topological manifolds. For hyperbolic groups this conjecture is known. We will discuss its proof and applications to existence and uniqueness of aspherical manifolds with hyperbolic

### 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)

fundamental groups.

**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)