

## ESI Programme on “K-Theory and Quantum Fields”

May 21 - July 27, 2012

Advanced Instructional Lectures and Research Workshop

June 4 - 8

Organized by: Matt Ando, Alan Carey, Harald Grosse, Jouko Mickelsson

- **Monday, June 4**

**09:30 – 10:30:** Bai-Ling Wang

*Twisted geometric cycles and twisted K-homology I*

**10:30 – 11:00:** coffee break

**11:00 – 12:00:** Sylvie Paycha

*The Gauss-Bonnet theorem for the non-commutative torus in the light of pseudodifferential calculus*

**12:00 – 14:00:** lunch break

**14:00 – 15:00:** Henri Lipponen

*On noncommutative BRST-complex and superconnection character forms*

- **Tuesday, June 5**

**09:30 – 10:30:** Bai-Ling Wang

*Twisted geometric cycles and twisted K-homology II*

**10:30 – 11:00:** coffee break

**11:00 – 12:00:** Paul Baum

*Atiyah-Singer Revisited*

- **Wednesday, June 6**

**09:30 – 10:30:** Bai-Ling Wang

*Twisted geometric cycles and twisted K-homology III*

**10:30 – 11:00:** coffee break

**11:00 – 12:00:** Paul Baum

*Beyond Ellipticity*

- **Thursday, June 7 (Bank Holiday)**  
**09:30 – 10:30:** Dan Freed  
*Twisted K-theory and superstrings I*  
**10:30 – 11:00:** coffee break  
**11:00 – 12:00:** Dan Freed  
*Twisted K-theory and superstrings II*
  
- **Friday, June 8**  
**09:30 – 10:30:** Dan Freed  
*Twisted K-theory and superstrings III*  
**10:30 – 11:00:** coffee break  
**11:00 – 12:00:** Dan Freed  
*Twisted K-theory and superstrings IV*

**All lectures take place in the ESI Boltzmann Lecture Hall**