

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***Discussion: 16:00 – 17:00:** Bai-Ling Wang*Thom isomorphism in twisted K-theory***• 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***Discussion: 14:00 – 15:00:** Urs Schreiber*Anomalies***Discussion: 16:00 – 17:00:** Frederic Rochon*Pseudo differential operators and stratified spaces*

- **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

Discussion: 14:00 – 15:00: Ezra Getzler
n - stacks as categories of fibrant objects

- **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