THE MATHEMATICS OF KNOTS:
THEORY AND APPLICATION

CONFERENCE PROGRAM

HEIDELBERG, DEC. 15 - DEC. 19, 2008
Meeting Room: IWR Seminar Room 432 (Im Neuenheimer Feld 368)

MONDAY, Dec. 15
9:00 am - 10:00 am  Louis Kauffman
Unitary Representations of the Artin Braid Group and the Quantum Algorithms for Jones Polynomials

*** COFFEE ***

10:45 am - 11:45 am  Heather Dye
The Arrow Polynomial

*** LUNCH ***

1:30 pm - 2:30 pm  Hugh Morton
Relations between Homfly and Kauffman satellite invariants

2:45 pm - 3:45 pm  Stavros Garoufalidis
The HOMFLY polynomial of a 3-manifold, the trilogarithm and Painlevé I

*** COFFEE ***

4:15 pm - 5:15 pm  Sergei Chmutov
Combinatorics of Gauss diagrams and the HOMFLYPT polynomial

TUESDAY, Dec. 16
9:00 am - 10:00 am  Cameron Gordon
Exceptional Dehn Filling

*** COFFEE ***

10:45 am - 11:45 am  Vassily Manturov
Which Khovanov homology theory is the right one?

GROUP PHOTO

*** LUNCH ***
1:30 pm - 2:30 pm  Jacob Rasmussen
*Dehn filling and the Thurston norm*

2:45 pm - 3:45 pm  Joan Licata
*Linearized homology for grid number one knots in $L(p,q)$*

*** COFFEE ***

4:15 pm - 5:15 pm  Denis Ilyutko
*Graphs-links, Virtual Links, Kauffman bracket and simplicial presentation of Khovanov homology*

**WEDNESDAY, Dec. 17**

9:00 am - 10:00 am  Andrew Ranicki
*Noncommutative localization in algebra and topology*

*** COFFEE ***

10:45 am - 11:45 am  Sylvain Cappell
*The Role of Knot Theory in Transformation Groups*

*** NO TALKS THIS AFTERNOON ***

*** CONFERENCE DINNER 7:00 pm ***

**THURSDAY, Dec. 18**

9:00 am - 10:00 am  Kent Orr
*Surfaces knots and iterated intersection theory*

*** COFFEE ***

10:45 am - 11:45 am  Martin Scharlemann
*Fibered knots and Property 2R*

*** LUNCH ***

1:30 pm - 2:30 pm  De Witt Sumners
*Random Knotting and Viral DNA Packing*

2:45 pm - 3:45 pm  Dorothy Buck
*Topology of DNA-Protein Interactions*

*** COFFEE ***
4:15 pm - 5:15 pm  Daniel Moskovic
Surgery equivalence classes of knots coloured by metabelian groups

**FRIDAY, Dec. 19**
9:00 am - 10:00 am  Sofia Lambropoulou
Singular knots and Yokonuma-Hecke algebras

*** COFFEE ***

10:45 am - 11:45 am  Jozef Przytycki
Skein module motivation for Gram determinants of planar curves

*** LUNCH ***

1:30 pm - 2:30 pm  Barbara Jablonska
Surfaces associated to a knotted space curve

2:45 pm - 3:45 pm  Louis Kauffman
Extending the Jones Polynomial for Virtual Links

*** COFFEE ***

4:15 pm - 5:15 pm  Stefan Friedl
Symplectic 4-manifolds and fibered 3-manifolds

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******************** END OF WORKSHOP *************************
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HAPPY HOLIDAYS

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HAPPY NEW YEAR