THE MANY FACETS OF THE MASLOV INDEX

American Institute of Mathematics

April 7-11, 2014

Monday, the 7th

Morning lectures

Étienne Ghys, Appearances of the Maslov index in topology and geometry Emmanuel Giroux, The Maslov index and Bott periodicity

Afternoon discussion sessions

Linear symplectic algebra Nonlinear Maslov index I

Tuesday, the 8th

Morning lectures

Leonid Polterovich, The Maslov index in symplectic topology Denis Auroux, Monotone Lagrangian tori

Afternoon discussion sessions

Signatures of fibred 4-manifolds Nonlinear Maslov index II

Wednesday, the 9th

Morning lectures

Joseph Keller, The Maslov index in "Corrected Bohr-Sommerfeld Quantum Conditions for Nonseparable Systems" Claude Viterbo, The Maslov index, positivity and Fourier transforms

Afternoon discussion sessions

Definitions of the Maslov index Boundary of the Siegel domain

Thursday, the 10th

Morning lectures

Michelle Bucher, Bounded cohomology and the Maslov index Sylvain Cappell, Casson's invariant and its generalisations

Afternoon discussion sessions

On bounded cohomology On the Casson invariant

Friday, the 11^{th}

Morning lectures

Jean Lannes, Symplectic linear algebra and the transversality defect Andrew Ranicki, Some numerical functions associated to the Maslov index

Moderated problem session

Moderator: Claude Viterbo