BOSTON UNIVERSITY GEOMETRY SEMINAR

NOTE: SPECIAL DATE!

QUESTIONS (AND A FEW ANSWERS) ABOUT CONTACT QUANTIZATION

Sean Fitzpatrick
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January 30, 2012, 3:00 – 4:00pm
Math/Computer Science, Room 148
111 Cummington Street, Boston

Tea: 2:30pm in Room 144

Abstract: Quantization problems in symplectic geometry have been an active area of study for many years and there are a number of different (but related) approaches, such as geometric quantization, deformation quantization, and index-theoretic methods. Since contact manifolds are the odd-dimensional cousins of symplectic manifolds, it is not uncommon to look for contact analogues of symplectic phenomena, including quantization. However, the literature on contact quantization seems to be fairly limited, with the exception of the work of Boutet de Monvel and Guillemin on Toeplitz structures. I will describe contact analogues of geometric and index-theoretic quantization, and discuss some of the questions I have yet to resolve, such as the relationship with the Toeplitz structures of Boutet de Monvel and Guillemin, and whether one can formulate a meaningful analogue of the "quantization commutes with reduction" statement in symplectic geometry.

See `http://math.bu.edu/research/geom/seminar.html` or contact Takashi Kimura *kimura@math.bu.edu* for more information.