BOSTON UNIVERSITY GEOMETRY SEMINAR

FORMAL PSEUDO-DIFFERENTIAL OPERATORS AND WITTEN'S R-SPIN NUMBERS

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February 29, 2012, 3:00 – 4:00pm
Math/Computer Science, Room B21
111 Cummington Street, Boston

Tea: 2:45pm in Room 144

Abstract: Witten's r-spin theory is a generalization of the celebrated Witten-Kontsevich theory for moduli spaces of curves. A mathematically rigorous proof of Witten's r-spin conjecture has been given by Jarvis-Kimura-Vaintrob in genus zero, and recently by Faber-Shadrin-Zvonkine and Fan-Jarvis-Ruan in all genera. Building on Witten's conjecture, we derive identities of r-spin numbers through formal pseudo-differential operators and give a proof of the Harer-Zagier formula for Euler characteristics of moduli spaces of curves. This is joint work with K. Liu and R. Vakil.

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