

DIFFERENTIAL GEOMETRY/PDE SEMINAR

MONDAY, AUGUST 11, 2008

PDL C-36

1:30–2:30PM

COUNTING SCHRÖDINGER BOUNDSTATES: SEMICLASSICS AND BEYOND

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The famous Rozenblum - Lieb - Cwikel inequality gives an universal bound on the number of negative eigenvalues of a Schrödinger operator in R^d , $d \geq 3$. What happens if the conditions guaranteeing that this inequality holds are violated? This includes slowly decaying potentials, small dimensions, and also operators on manifolds and on the lattice.

I am going to give a survey of the results known in this field. The talk is based upon a joint paper with G. Rozenblum, and it was prepared for the conference marking the 100-th anniversary of S.L.Sobolev (October 2008).

For more information about this seminar, visit the DG/PDE Seminar Web page (from the Math Department home page, www.math.washington.edu, follow the link **Seminars, Colloquia, and Conferences**).

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