

## Continuity properties of the integrated density of states on manifolds

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**Abstract.** We first analyze the integrated density of states (IDS) of periodic Schrödinger operators on an amenable covering manifold. A criterion for the continuity of the IDS at a prescribed energy is given along with examples of operators with both continuous and discontinuous IDS.

Subsequently, alloy-type perturbations of the periodic operator are considered. The randomness may enter both via the potential and the metric. A Wegner estimate is proven which implies the continuity of the corresponding IDS. This gives an example of a discontinuous “periodic” IDS which is regularized by a random perturbation.

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