Contribution Title:	A SUPERSYMMETRIC MODEL FOR QUANTUM DIFFUSION IN 3D
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Invited speaker:	Topical session
YRS seminar:	NO

We consider a lattice field model which qualitatively reflects the phenomenon of Anderson localization and delocalization for real symmetric band matrices. We prove that in three or more dimensions the model has a 'diffusive' phase at low temperatures. Localization is expected at high temperatures. Our analysis uses estimates on non-uniformly elliptic Green's functions and a family of Ward identities coming from internal supersymmetry (joint work with T. Spencer and M. Zirnbauer)