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Christoph A Marx* (cmarx@caltech.edu), Department of Mathematics, California Institute of Technology, Pasadena, CA 91125, and **Svetlana Jitomirskaya**. *Absence of point spectrum in the self-dual regime for Extended Harper's model.*

Extended Harper's model was introduced by D.J. Thouless to describe a Bloch electron in a 2d crystal layer, general enough to interpolate between a variety of lattice geometries, from rectangular to triangular. Its Hamiltonian can be presented as a 1d quasi-periodic Jacobi operator, where both the sampling functions generating diagonal and off-diagonal matrix elements are trigonometric polynomials of degree 1.

As opposed to the almost Mathieu operator, the model possesses a vast self-dual regime in the space of coupling constants which shows both sub-critical and critical behavior within Avila's "global theory".

In this talk, we present a strategy to prove absence of point spectrum in the self-dual regime. This shows that the self-dual regime is either purely absolutely- or purely singular continuous, governed by the symmetry of the next-nearest coupling terms. The work is joint with Svetlana Jitomirskaya. (Received September 03, 2012)