Dynamical systems that are amenable to formulation in terms of a Hamiltonian function or operator encompass a vast swath of fundamental cases in applied mathematics and physics. This carefully edited volume represents work carried out during the special program on Hamiltonian Systems at MSRI in the Fall of 2018. Topics covered include KAM theory, polygonal billiards, Arnold diffusion, quantum hydrodynamics, viscosity solutions of the Hamilton–Jacobi equation, surfaces of locally minimal flux, Denjoy subsystems and horseshoes, and relations to symplectic topology.

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Hamiltonian Systems:
Dynamics, Analysis, Applications

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