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**Bryna Kra\*** ([kra@math.northwestern.edu](mailto:kra@math.northwestern.edu)), Department of Mathematics, Northwestern University, 2033 Sheridan Road, Evanston, IL 60208. *Dynamics of systems with low complexity.*

One way to classify dynamical systems is by their entropy, which roughly speaking gives a measure of the disorder in the system. Deterministic systems have zero entropy, but in spite of this structure, many basic questions about systems with zero entropy remain open. Even when placing strong constraints on the complexity of the system, easily formulated questions remain intractable. I will give an overview of the relations among complexity, algebraic properties, and dynamical characteristics of the system (such as periodicity, minimality, and transitivity), and their relations to combinatorial problems. (Received July 05, 2018)