Introduction to the software package `Dynamics Explorer' for exploration of discrete dynamical systems

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In this talk I will give a demonstration on how to use the platform independent (and free) Java-based software `Dynamics Explorer', in which researchers can write their own scripts for computing several different types of 2D images related to a family of discrete dynamical systems, in real or complex variables. I will show examples from: Henon maps in two real variables (stable and unstable manifolds) and in two complex variables (Julia sets in unstable manifolds), polynomial and rational functions in one complex variable with one or more critical points (Julia sets), iterated function systems (attractors), and random complex dynamical systems (probabilistic Julia sets).