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Cascade of bifurcation type trajectories as a general type of attractors in fractional dynamical systems[1] MARK EDELMAN, Stern College at Yeshiva University, Courant Institute at NYU — Based on the results of computer simulations and analytical investigation of fractional maps, we present our latest results related to the existence and stability of the new type of attractors in the fractional dynamical systems: cascade of bifurcation type trajectories (CBTT). We show that in fractional Standard Map (FSM) this type of attractors appears in the area of parameters, where in the corresponding integer system (regular Standard Map) series of period doubling bifurcations and corresponding splitting of islands of stability leads to the disappearance of stability and transition to chaos.

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