

# Chaotic orbits for systems of nonlocal equations

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In this talk we consider a system of nonlocal equations driven by a perturbed periodic potential, and we construct multibump solutions which connect one integer point to another one in a prescribed way. In particular, heteroclinic, homoclinic and chaotic trajectories are constructed. This is the first attempt to consider a nonlocal version of this type of dynamical systems in a variational setting and the first result regarding symbolic dynamics in a fractional framework.

This is a joint work with Stefania Patrizi and Enrico Valdinoci.