

Nontwist non-Hamiltonian systems

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We show that the nontwist phenomena previously observed in Hamiltonian systems exist also in time-reversible non-Hamiltonian systems. In particular, we study the two standard collision/reconnection scenarios and we compute the parameter space breakup diagram of the shearless torus. Besides the Hamiltonian routes, the breakup may occur due to the onset of attractors. We study these phenomena in coupled phase oscillators and in non-area-preserving maps.

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- [1] E. G. Altmann, G. Cristadoro, and D. Pazó, "Nontwist non-Hamiltonian systems" *Phys. Rev. E* **73** 056201 (2006)