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Sonja Hohloch, Yohann Le Floch and **Joseph Palmer***, j.palmer@math.rutgers.edu. *Explicit constructions of integrable systems of semitoric type.*

A semitoric integrable system is a four-dimensional integrable system for which one of the integrals is assumed to have periodic Hamiltonian flow, corresponding to a circular symmetry of the system. Since their introduction by Pelayo and Vũ Ngọc semitoric integrable systems have been the subject of a large amount of research, but so far what has been missing a large collection of examples. In this talk we remedy this by both providing explicit examples of such systems and by showing how a large class of semitoric integrable systems can be constructed in general. (Received September 26, 2017)