

Recent developments and advances around hypersemitoric systems

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Hypersemitoric systems are two degree of freedom integrable Hamiltonian systems on 4-dimensional compact symplectic manifolds with possibly mild degeneracies where one of the integrals gives rise to an effective Hamiltonian S^1 -action.

We will give an overview on the progress towards a symplectic classification and nearby developments like the definition of the ‘polygon invariant’, progress around the Taylor series invariant for hyperbolic-regular points associated with flaps and swallowtails, and bifurcation behaviour arising from nontrivial isotropy resp. resonances. For details, we refer to the posters and/or talks of collaborators also presented at this conference.