

On the Taylor series invariant of hyperbolic-regular values in the presence of an S^1 -action

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In this short talk I will explain the construction of the Taylor series invariant for a family of hyperbolic-regular values of an integrable system $(M, \omega, (J, H))$ where J generates an effective S^1 -action. Furthermore, I will present the computation of this invariant in two examples. In one example the pre-images of the hyperbolic-regular values are curled torus, and in the other the pre-images are bitorus. This is joint work with Holger Dullin and Sonja Hohloch.