

1120-37-203

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*Nosé-Thermostatted Mechanical Systems on the  $n$ -torus in the High-Temperature Limit.*

Let  $H$  be an  $n$ -degree of freedom smooth mechanical Hamiltonian on the cotangent bundle of the  $n$ -torus. When the metric is sufficiently close to a flat metric, the Nosé-thermostated system associated to  $H$  is shown to have invariant tori near the infinite temperature limit. This is shown to be true for all thermostats similar to Nosé's. These results complement the result of Legoll, Luskin and Moeckel who proved the existence of such tori near the decoupling limit. (Received February 22, 2016)