THE BIRKHOFF NORMAL FORM AND A PROBLEM OF M. HERMAN

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We shall discuss some questions related to the Birkhoff normal form of an analytic Hamiltonian system near an elliptic equilibrium (or a KAM-torus) with Diophantine frequencies. We shall also discuss a problem raised by M. Herman in his ICM lecture in Berlin 1996: is such an equilibrium always accumulated by a set of KAM-tori of positive measure?

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