

Speaker: Vassili Gelfreich

Title: A portrait of Arnold Diffusion near a double resonance.

Abstract:

In this talk we will present a study of the Arnold diffusion in a 4d symplectic map near a double resonance. This study is based on a combination of analytical and numerical tools recently developed in collaboration with A.Vieiro and C.Simo. Our methods allow to visualise fine details of the dynamics near the resonances providing high resolution illustrations for the process.

We also separate processes developing on different time scales and find quantitative characteristics of the Arnold diffusion.