Seminar of differential equations will continue on **May 15, 2023 at 12pm in lecture room M5**.

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Some questions concerning nonautonomous linear Hamiltonian systems

Abstract:
In the talk the definitions and properties of the rotation number and exponential dichotomy for linear non-autonomous Hamiltonian systems are presented. Some applications to spectral theory for properly perturbed Hamiltonian systems and linear quadratic minimization problems are also presented. Finally, starting from the geometric definition of the rotation number related to the Arnold-Maslov index, some ideas on numerical computation of the Maslov index for frames, i.e., Lagrange planes generated by the solutions of the systems, are given. This is related to the spectral theory of the (n)-dimensional Schrödinger equation.