

## **abstract**

Symplectic Dynamics Seminar  
Topic:

Speaker:

Affiliation:

Date:

Time/Room:

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We review some recent developments in KAM theory. By exploiting some identities of a geometric nature, one can obtain iterative steps which lead to numerical algorithms and which can follow the tori till breakdown.

We present theoretical results in several contexts:

- A) Persistence of non-twist tori (these are tori whose frequency map is degenerate).
- B) Conformally symplectic systems (systems with friction proportional to the velocity)
- C) Pre-symplectic systems
- D) Some ill-posed equations such as Boussinesq equation for water waves.

We also present some numerical results obtained implementing the algorithms and conjectures on the phenomena that happen at breakdown. This is joint work with H. Alishah, R. Calleja, A. Celletti, E. Fontich, A. Gonzalez-Enrique, A. Haro, G. Huguet, Y. Sire.