

On existence of translated points for contactomorphisms

Sheila Sandon

Nantes

Abstract:

A point p in a contact manifold is called a translated point for a contactomorphism ϕ with respect to a fixed contact form if p and $\phi(p)$ belong to the same Reeb orbit and if the contact form is preserved at p . In my talk I will discuss the problem of existence of translated points, and its relation with the Arnold conjecture, the chord conjecture and the problem of leafwise coisotropic intersections. If I will have the time I will also explain how to use generating functions techniques to study this problem for contactomorphisms of the euclidean space, the sphere and the projective space.