

Title: How hyperbolic is a generic Reeb flow on a closed 3-manifold?

Abstract: *A Reeb vector field is a non-singular vector field that, with respect to some metric, is colinear with its curl and the curl is non-singular. These vector fields are defined by a contact form. I will discuss two results obtained under generic hypothesis, first the existence of Birkhoff sections and then the use of Birkhoff sections to obtain chaotic dynamics (homoclinic intersections for every hyperbolic periodic orbit).*

These results are part of a collaboration with V. Colin, P. Dehornoy and U. Hryniewicz.