Conference on New Challenges and Perspectives in Symplectic Field Theory A conference in Honour of Yasha Eliashbergs 60th Birthday June 25 – 29, 2007

A survey of contact homology

Frédéric Bourgeois Dép. de mathématiques Université Libre de Bruxelles CP 218, Boulevard du Triomphe 1050 Bruxelles BELGIQUE fbourgeo@ulb.ac.be

Abstract

After explaining the definition of (linearized) contact homology, I will give several examples of its applications in contact topology. I will then turn to structural results allowing to compute or at least obtain some information about contact homology without using its definition.