



Research Seminar Program UC|UP Joint PhD Program in Mathematics

Date and Time. November 19, 2015 - 14h00

Place. Room M031, Department of Mathematics, University of Porto

Speaker. Luigi Forcella ¹

Title. The electrostatic limit for the Zakharov system

Abstract. The Zakharov system describes the coupled dynamics of the electric field amplitude and the low frequency fluctuation of the ions in a unmagnetized or weakly magnetized plasma. This system couples Schrödinger-like and wave equations and in its physical derivation depends on a parameter α . Large value of α describes a plasma that is very hot, so it is meaningful to study the limit for the solutions to this system as α goes to infinity. In this talk we give rigorous mathematical result in this direction.

¹Luigi Forcella is a PhD student at Scuola Normale Superiore di Pisa, Italy and working in the area of "Analysis" under the supervision of Prof. Luigi Ambrosio.