Workshop on Hyperbolic Partial Differential Equations　**(II)**

双曲偏微分方程研讨会（II）

2021 年 5 月 13 日

组织委员会:

邓师瑾(上海交通大学)

李亚纯 (上海交通大学)

王维克 (上海交通大学)

时间: 下午 15:30-18:00，主题演讲及小组讨论。

地点: 上海交通大学数学科学学院 理科大楼 6 号楼 901

15:30-16:15　主题演讲 I：周忆 (复旦大学)，主持：李亚纯

Title: Uniqueness and stability of traveling waves to the time-like extremal hypersurface in Minkowski space

Abstract: There are few results about the global stability of nontrivial solutions to quasilinear wave equations. In this paper we are concerned with the uniqueness and stability of traveling wave to the time-like extremal hypersurface in Minkowski space. Firstly, we can get the existence and uniqueness of traveling wave solutions to the time-like extremal hypersurface in R1+(n+1), which can be considered as the generalized Bernstein theorem in Minkowski space. Furthermore, we also get the stability of traveling wave solutions with speed of light to time-like extremal hypersurface in 1 + (2 + 1) dimensional Minkowski space, which is corresponding with quasilinear wave equation in two dimensions. This is a joint work with Jianli Liu.

16:15-16:45　茶歇

16:45-17:30　主题演讲 II：曲鹏 (复旦大学)，主持：邓师瑾

Title: Wild behavior of distributional weak solutions to 2D hypoviscous Navier-Stokes equations

Abstract: Through an adaption of the convex integration scheme in the two-dimensional case, a result of the h-principle type is presented for the two-dimensional hypoviscous incompressible Navier-Stokes equations. It is shown that the distributional weak solutions can possess compact temporal supports and thus are not unique in general. This presentation is based on a collaboration with Prof. Tianwen Luo.

17:30-18:00　小组讨论