

ARITHMETIC, ANALYTIC AND DYNAMIC PROPERTIES OF FURSTENBERG SET

Speaker: Professor Aihua Fan (范爱华)

University of Picardie (France)

Time: Tuesday, January 18, 2022, 16:00-17:00

Tencent room: 548-138-887

Code: 200433

Abstract: The Furstenberg set $S = \{2^n 3^m\}$ is the semi-group of positive integers generated by 2 and 3. The Furstenberg sequence $S = \{s_n\}$ is the set S with its elements increasingly ordered. The first arithmetic property of S was announced by Ramanujan and Hardy gave a proof, the first dynamic properties of S were obtained by Furstenberg and the famous Furstenberg then arose, Gundy-Varopoulos proved that S is a $\Lambda(p)$ -set which is a property from the point view of harmonic analysis and martingales are naturally involved. We shall present some works around these topics, based on a half survey paper of A. H. Fan, H. Queffelec and M. Queffelec.