

數學系 香港中文大學

Phone: (852) 3943 7988-9 • Fax: (852) 2603 5154 • Email: dept@math.cuhk.edu.hk Rm. 220, Lady Shaw Building, The Chinese University of Hong Kong, Shatin, N.T., Hong Kong

## Representation and Number Theory Seminar

## On p-adic Deligne–Lusztig spaces

**b**y

## Dr. Alexander Ivanov Rheinische Friedrich-Wilhelms-Universität Bonn

## **Abstract:**

We discuss a new definition of p-adic Deligne-Lusztig spaces, as arc-sheaves on perfect algebras over the residue field. Then we look then at some fundamental properties of these sheaves. In particular, we discuss cases in which these sheaves are ind-representable resp. even representable. Along the way we also discuss a general result saying that the (perfect) loop space of a quasi-projective scheme over  $Q_p$  is an arc-sheaf.

Date: October 12, 2021 (Tuesday)

Time: 4:00pm - 5:00pm (Hong Kong SAR)

700m link:

https://cuhk.zoom.us/j/97838822137?pwd=ZTVvSC9abmNjR3RCcS9FTzJNTVhXdz09

Meeting ID: 978 3882 2137

Passcode: sesame