



## Mathematics and CS Seminar

# Bessel equations, hypergeometric sums and geometric Langlands correspondence

**Daxin Xu**

Morningside Center of Mathematics

Host: Tamas Hausel

I will first review the relationship between the Kloosterman sums and the classical Bessel differential equation. Recently, there are two generalizations of this story (corresponding to GL<sub>2</sub>-case) for arbitrary reductive groups using ideas from the geometric Langlands program, due to Frenkel-Gross and Heinloth-Ngô-Yun. I will discuss my joint work with Xinwen Zhu where we unify previous two constructions from the p-adic aspect and identify the exponential sums associated to different groups as conjectured by Heinloth-Ngô-Yun. I will also talk about my recent joint work with Masoud Kamgarpour and Lingfei Yi on the generalization of the above story to hypergeometric sheaves.

**Thursday, April 28, 2022 01:00pm - 03:00pm**

<https://mathseminars.org/seminar/AGNTISTA>



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