

1120-14-36

**Tyler Foster** and **Dhruv Ranganathan\***, 10 Hillhouse Avenue, New Haven, CT 06511.

*Geometry over higher rank valued fields.*

I will discuss recent joint work with Tyler Foster, in which study the interaction between the polyhedral geometry of multistage degenerations, tropicalization, and the topology of a newly defined space – the Hahn analytification – that generalizes the standard Berkovich analytification. We discuss degenerations of toric varieties over higher rank bases in detail. Furthermore, the Hahn analytification is applied resolve a conjecture of Banerjee on the connectivity of higher rank tropicalizations. (Received January 28, 2016)