



THE WEIZMANN INSTITUTE OF SCIENCE
FACULTY OF MATHEMATICS AND COMPUTER SCIENCE

Algebraic Geometry and Representation Theory Seminar

Room 155 ,Ziskind Building
on Tuesday, Aug 28, 2018
at 11:15

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Degenerations of p -adic volume forms.

Abstract:

Let X be an n -dimensional smooth projective variety over a non-Archimedean local field K , such as the p -adic numbers, and let ω be a global n -form on X . The set $X(K)$ of K -points on X has the structure of a K -analytic manifold, and ω induces a measure $|\omega|$ on $X(K)$. For any finite extension K' of K , there is a natural continuous map from $X(K')$ to the Berkovich analytification $X^{\{\mathrm{an}\}}$ of X . We study the asymptotics of the images of the measures $|\omega| \otimes_{KK'} |$ on $X^{\{\mathrm{an}\}}$ as K' runs through towers of finite extensions of K . This is joint work with Johannes Nicaise.