



THE WEIZMANN INSTITUTE OF SCIENCE  
FACULTY OF MATHEMATICS AND COMPUTER SCIENCE

Algebraic Geometry and Representation Theory Seminar

Room 261 ,Ziskind Building  
on Monday, Jan 04, 2016  
at 11:00

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Degenerations of Calabi-Yau manifolds and non-Archimedean analytic spaces

Abstract:

Various considerations, from mirror symmetry and elsewhere, have lead people to consider 1-parameter degenerating families of Calabi-Yau manifolds, parameterized by the punctured unit disc. A conjecture by Kontsevich-Soibelman and Gross-Wilson describe what the limiting metric space should be, under suitable hypotheses. I will present joint work with Sebastien Boucksom, in which we show a measure theoretic version of this conjecture. The precise result involves a partial compactification of the family, obtained by adding a non-Archimedean analytic space, in the sense of Berkovich, as the central fiber.