



THE WEIZMANN INSTITUTE OF SCIENCE
FACULTY OF MATHEMATICS AND COMPUTER SCIENCE

Algebraic Geometry and Representation Theory Seminar

Room 290C ,Ziskind Building
on Tuesday, Feb 13, 2018
at 11:15

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The intricate relationship between the Mumford system and the Jacobians of
singular hyperelliptic curves

Abstract:

The generalized Jacobian $\text{Jac}_m(C')$ of a smooth hyperelliptic curve C' associated with a module m is an algebraic group that can be described by using lines bundle of the curve C' or by using a symmetric product of the curve C' provided with a law of composition. This second definition of the Jacobian $\text{Jac}_m(C')$ is directly related to the fibres of a Mumford system. To be precise it is a subset of the compactified $\text{Jac}_m(C')$ which is related to the fibres. This presentation will help us to demystify the relationship of these two mathematical objects.