

# *Theory and Computation in Algebra and Algebraic Geometry*



*With a dedication to Paolo Valabrega on the occasion of his 70(+2)th Birthday*

*Department of Mathematics - University of Torino - May 29-30, 2017*

## **Horrocks correspondence on ACM varieties**

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Horrocks described vector bundles on projective spaces in terms of their intermediate cohomology modules. Following recent work with F. Malaspina, I will discuss an extension of this description to the case of arithmetically Cohen-Macaulay varieties, giving examples in cases like quadric hypersurfaces. The extension relies on additional cohomological data that involves ACM bundles on the variety.