

FROM RINGS OF COUNTABLE COHEN-MACAULAY TYPE TO THE INFINITE GRASSMANNIAN

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ABSTRACT. By a result of Buchweitz-Greuel-Schreyer, a hypersurface is of countable Cohen-Macaulay representation type if and only if it is isomorphic to a singularity of type A_∞ or D_∞ . In this talk, we show how the category $CM(R)$ of maximal Cohen-Macaulay modules over the coordinate ring R for the A_∞ -curve gives a categorical model for arcs in an “ ∞ -gon”. This allows us to construct triangulations of the ∞ -gon, making use of a limit construction of Jensen-King-Su’s Grassmannian cluster categories. This is joint work with J. August, M. Cheung, S. Gratz, and S. Schroll.