

THE COMPLETE INTERSECTION PROPERTY THROUGH THE LENS OF DERIVED CATEGORIES

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ABSTRACT. This talk will be about what we can learn about a commutative noetherian ring through the structure of its derived category. A classical result of Auslander, Buchbaum, and Serre can be recast as a characterization of the regularity property purely in terms of the structure of the derived category as a triangulated category. In my talk I will focus on a similar characterization of the complete intersection property for rings, and also for maps of rings. It will be based on work of (and some in collaboration with) Briggs, Dwyer, Greenlees, Letz, and Pollitz.