

## Endolocality and homomorphism-homogeneous relational structures I

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The concept of homomorphism-homogeneous relational structures was introduced by Cameron and Nešetřil as an interesting and natural generalization of the notion of homogeneity. It opened a question of characterization and classification of such structures. However, this was so far a combinatorial problem driven by curiosity. In this talk we will show how to study homomorphism-homogeneous relational structures systematically, using both model-theoretical and algebraic methods. For this purpose, the notion of endolocal relational structure will be introduced, studied and linked to the notion of homomorphism-homogeneous relational structure. All connections that are obtained will be presented in the Main theorem. Finally, we will point out several important consequences that the Main theorem has for clone theory.