

**Group Rings and Topological Rigidity***Arthur Bartels* (Univ. Münster)

MON/P1 11:15–12:05
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The Borel conjecture asserts that an interesting class of manifolds (aspherical manifolds) are classified by their fundamental group. Via surgery theory this conjecture is connected to a conjecture about algebraic  $K$ - and  $L$ -theory of group rings and to very basic question about group rings. Geometric properties of groups can be used to study these conjectures and questions and lead to new results.

The talk will give an introduction to these questions and conjectures, the relation among them and discuss recent results.