ON THE DE RHAM-BETTI CONJECTURE

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Venue: Room 102, SCMS

Abstract:

When an algebraic variety is defined over a number field, the comparison between algebraic de Rham cohomology and its Betti cohomology produces very interesting complex numbers called periods. The Grothendieck Period Conjecture says that these complex numbers have maximal possible transcendence degree. This conjecture can be decomposed into several independent sub-conjectures. We will investigate some of them, called de Rham-Betti conjecture(s), in the case of abelian varieties and hyperKahler varieties. This is joint work with Tobias Kreutz and Charles Vial.