

Members Seminar

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Hodge and Chern Numbers of Algebraic Varieties 60 Years After Hirzebruch's Riemann-Roch Theorem

Series: Members Seminar

Dieter Kotschick

Universitat Munchen; Member, School of Mathematics

Date & Time: Mon, 03/04/2013 - 14:00 - 15:00

Location: S-101

Video Link:

<http://video.ias.edu/members/1213/0304-DieterKotschick>

In its simplest form, Hirzebruch's 1953 Riemann-Roch theorem is an identity between certain combinations of Hodge numbers on the one hand and certain combinations of Chern numbers on the other. I will show that there are no other such identities, beyond HRR. I will also discuss the topological non-invariance of Hodge and Chern numbers, exhibiting systematic examples of diffeomorphic varieties with distinct Hodge and Chern numbers. This leads to the complete solution of a problem posed by Hirzebruch in connection with Riemann-Roch. (This talk is based in part on joint work with S. Schreieder.)

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Fri, 08/31/2012 - 20:27

Mon, 02/25/2013 - 15:52

terms:

- [School of Mathematics](#)