

# Modulbeschreibung für Vertiefungsmodule des Wahlpflichtbereiches

<b>Titel des Moduls</b>	Algebraische Geometrie II
in englischer Sprache	Algebraic Geometry II

<b>R</b>	X
<b>A</b>	

	Vorlesung	Übung
<b>Umfang</b>	4	2

<b>Inhalt</b>	
<p>The course offers an introduction to the modern language and techniques of algebraic geometry. The main topics of this course are the study of algebraic schemes, and the development of cohomological techniques (cohomology of coherent sheaves, Čech cohomology, flat families, base change etc). The second and third chapters of Hartshorne's book will be covered. The course will end with a construction of the Hilbert scheme in the style of Grothendieck.</p> <p>Bibliography: Hartshorne, Algebraic Geometry, Springer. Eisenbud, Harris: The geometry of schemes, Springer. Mumford: The red book of varieties and schemes, Springer.</p>	

<b>Voraussetzungen</b>	Algebra II, Algebraische Geometrie I
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<b>Regelsemester</b>	
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<b>Abschluss</b>	Mündliche Prüfung
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<b>Prüfungszulassungsvoraussetzung</b>	keine
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<b>Studienpunkte</b>	10
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R = Reine Mathematik  
A = Angewandte Mathematik