FB Mathematik
Thomas Markwig SS 2006

Commutative Algebra

General Reading				
0	Homological Algebra	[?, Kap. A 2.2 & A 3.1-11]	all	
Regular Rings, Graded Rings and Modules				
1	Regular Rings	[?, Sätze 10.5, 10.7, 10.10 & 10.14-15]	Max Pumperla	25.04.06
2	Graded Modules and Rings	[?, Kap. 1.5, 1.9-10], [?, Prop. 10.7]	Stefania Barzan	02.05.06
3	Graded Lemma of Nakayama	[?], [?, Thm. 11.22], [?, 10.8-9]	Shawki Al-Rashed	09.05.06
4	Flatness and Tor	[?, Kap. 6.1-2, Prop. 6.1, Cor. 6.3, Thm. 6.8]	Moynul Hossain	16.05.06
Regular Sequences and the Koszul Complex				
5	Koszul Complexes	[?, Kap. 17.1-4 pp. 423-440]	Thomas Markwig	23./30.05.06
Depth, Codimension, and Cohen-Macaulay Rings				
6	Depth	[?, Kap. 18.1 pp. 451-455]	Maximilian Boy	13.06.06
7	Cohen-Macaulay Rings	[?, Kap. 18.2 pp. 455-460]	Andreas Glang	27.06.06
8	Primness, Flatness and Depth	[?, Kap. 18.3-4 pp. 461-466]	Matthias Herold	04.07.06
Homological Theory of Regular Local Rings				
9	Projective Dimension	[?, Kap. 19.1-2 pp. 473-478, Thm. 20.1]	Clemens Thielen	11.07.06
10	Auslander-Buchsbaum Formula	[?, Kap. 19.2-3 pp. 478 (C. 19.8)-483]	Achim Faßbender	18.07.06
11	Factoriality of Regular Local Rings	[?, Kap. 19.3-4 pp. 483 (C. 19.14)-487]	Maryna Viazovska	25.07.06

References

[AM] **Atiyah, MacDonald**: Introduction to Commutative Algebra

[E] **Eisenbud**: Commutative Algebra

[GM] **Gelfand, Manin**: Methods of Homological Algebra

[HS] **Hilton, Stammbach**: A Course in Homological Algebra

[Ma] **Markwig**: Graduiertes Nakayama Lemma