

Some references to the literature

Our basic source is [6]. We will cover §§1–8 of his book, in the following order: 3, 7, 4, 5, 6, 1, 2, 8. We recommend both [5] and Chapters A.5, A.6 of [2] as surveys of the material in [6].

Towards the end of the lectures our topic will be Riemann's theta function, with applications to jacobians. Then our main source will be §§1–3 of Chapter II of [4].

More advanced sources are [1] and [3]. Please note that these sources assume (more) familiarity with line bundles, cohomology and Hodge theory. In our course these aspects are present, but only in the background.

For generalities on several complex variables and complex manifolds we recommend Chapters 1–2 of [7].

References

- [1] C. Birkenhake, H. Lange, *Complex abelian varieties*. Grundlehren der Mathematischen Wissenschaften 302. Springer Verlag.
- [2] M. Hindry, J. Silverman, *Diophantine geometry, An introduction*. Graduate Texts in Mathematics 201. Springer Verlag.
- [3] G. Kempf, *Complex abelian varieties and theta functions*. Springer Verlag.
- [4] D. Mumford, *Tata Lectures on Theta I*. Progress in Mathematics 28. Birkhäuser.
- [5] M. Rosen, *Abelian varieties over \mathbb{C}* . In: G. Cornell, J. Silverman (eds.), *Arithmetic Geometry*. Springer Verlag.
- [6] H.P.F. Swinnerton-Dyer, *Analytic theory of abelian varieties*. London Mathematical Society Lecture Note Series 14. Cambridge University Press.
- [7] C. Voisin, *Hodge theory and complex algebraic geometry I*. Cambridge Studies in Advanced Mathematics 76. Cambridge University Press.