1. Record Nr. UNINA9910151937403321 Autore Ballmann Werner Titolo Lectures on Kahler Manifolds [[electronic resource] /] / Werner Ballmann Pubbl/distr/stampa Zuerich, Switzerland,: European Mathematical Society Publishing House, 2006 3-03719-525-8 **ISBN** Descrizione fisica 1 online resource (182 pages) Collana ESI Lectures in Mathematics and Physics (ESI) Classificazione 53-xx32-xx58-xx Soggetti Differential & Riemannian geometry Differential geometry Several complex variables and analytic spaces Global analysis, analysis on manifolds Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Sommario/riassunto These notes are based on lectures the author held at the University of Bonn and the Erwin-Schrodinger-Institute in Vienna. The aim is to give a thorough introduction to the theory of Kahler manifolds with special emphasis on the differential geometric side of Kahler geometry. The exposition starts with a short discussion of complex manifolds and holomorphic vector bundles and a detailed account of the basic differential geometric properties of Kahler manifolds. The more advanced topics are the cohomology of Kahler manifolds, Calabi conjecture, Gromov's Kahler hyperbolic spaces, and the Kodaira embedding theorem. Some familiarity with global analysis and partial differential equations is assumed, in particular in the part on the Calabi conjecture. There are appendices on Chern-Weil theory, symmetric

spaces, and L2-cohomology.