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Nota di contenuto	Unstable polynomials of algebraic surfaces -- Identification of ?3,r (S, H) with ?3(S) -- Certain moduli spaces for bundles on elliptic surfaces with p g = 1 -- Representatives for classes in the image of the ?-map -- The blow-up formula -- The proof of Theorem 1.1.1.
Sommario/riassunto	This book is about the smooth classification of a certain class of algebraicsurfaces, namely regular elliptic surfaces of geometric genus one, i.e. elliptic surfaces with b1 = 0 and b2+ = 3. The authors give a complete classification of these surfaces up to diffeomorphism. They achieve this result by partially computing one of Donalson's polynomial invariants. The computation is carried out using techniques from algebraic geometry. In these computations both thebasic facts about the Donaldson invariants and the relationship of the moduli space of ASD connections with the moduli space of stable bundles are assumed known. Some familiarity with the basic facts of the theory of moduliof sheaves and bundles on a surface is also assumed. This work gives a good and fairly comprehensive indication of how the methods of algebraic geometry can be used to compute Donaldson invariants.