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Autore	Cutkosky Steven D
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Nota di contenuto	1. Introduction -- 2. Local Monomialization -- 3. Monomialization of Morphisms in Low Dimensions -- 4. An Overview of the Proof of Monomialization of Morphisms from 3 Folds to Surfaces -- 5. Notations -- 6. The Invariant v -- 7. The Invariant v under Quadratic Transforms -- 8. Permissible Monoidal Transforms Centered at Curves -- 9. Power Series in 2 Variables -- 10. Ar(X) -- 11.Reduction of v in a Special Case -- 12. Reduction of v in a Second Special Case -- 13. Resolution 1 -- 14. Resolution 2 -- 15. Resolution 3 -- 16. Resolution 4 -- 17. Proof of the main Theorem -- 18. Monomialization -- 19. Toroidalization -- 20. Glossary of Notations and definitions -- References.
Sommario/riassunto	A morphism of algebraic varieties (over a field characteristic 0) is monomial if it can locally be represented in e'tale neighborhoods by a pure monomial mappings. The book gives proof that a dominant morphism from a nonsingular 3-fold X to a surface S can be monomialized by performing sequences of blowups of nonsingular subvarieties of X and S. The construction is very explicit and uses techniques from resolution of singularities. A research monograph in algebraic geometry, it addresses researchers and graduate students.