

1. Record Nr.	UNINA9910144941903321
Autore	Cutkosky Steven D
Titolo	Monomialization of Morphisms from 3-Folds to Surfaces // by Steven D. Cutkosky
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2002
ISBN	3-540-48030-7
Edizione	[1st ed. 2002.]
Descrizione fisica	1 online resource (VIII, 240 p.)
Collana	Lecture Notes in Mathematics, , 0075-8434 ; ; 1786
Classificazione	14D06 14E15
Disciplina	516.35
Soggetti	Algebraic geometry Algebraic Geometry
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
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.