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Titolo	Mathematical Work in Educational Context : The Perspective of the Theory of Mathematical Working Spaces // edited by Alain Kuzniak, Elizabeth Montoya-Delgado, Philippe R. Richard
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Nota di contenuto	Chapter 1. The Theory of Mathematical Working Spaces – Theoretical Characteristics -- Chapter 2. Methodological Aspects in the Theory of Mathematical Working Spaces -- Chapter 3. The Theory of Mathematical Working Spaces in Brief -- Chapter 4. The Reference Mathematical Working Space -- Chapter 5. Personal Mathematical Work and Personal MWS -- Chapter 6. The Idoine or Suitable MWS as an Essential Transitional Stage between Personal and Reference Mathematical Work -- Chapter 7. The Theory of Mathematical Working Spaces: Theoretical Environment, Epistemological Stance and Dialogue with other Theories -- Chapter 8. Mathematical work in the digital age. Variety of tools and the role of genesis -- Chapter 9. Instrumental Genesis in the Theory of MWS: Insight from Didactic Research on Digital Artifacts -- Chapter 10. Mathematics Teachers' Knowledge and Professional Development: A Cross-Case Comparison Study -- Chapter 11. Modeling in Education: New Perspectives Opened by the Theory of Mathematical Working Spaces -- Chapter 12. Mathematical Work and

Beyond.

Sommario/riassunto

This book is a friendly and complete introduction to one of the most comprehensive contemporary theories of mathematics teaching and learning. By focusing on mathematical work performed by students and teachers during mathematics session, the theory of Mathematical Workings Spaces (MWS) has opened up new perspectives and avenues on mathematics education and mathematical thinking. In particular, it enables the identification of students' knowledge production processes and helps teachers to shape them. The first part of the book explores the heart of the theory and aims to further describe and understand epistemological and cognitive aspects of mathematical work. The second part develops the different MWS dedicated to observing how this work depends on the expectations of educational systems, how it is formed and taught, and how individuals appropriate it. In the last part, some applications and perspectives are discussed regarding topics of major importance today in mathematics education which relate to technological and digital tools, teacher training and modeling activities. In line with the spirit of the theory, the book was written to reflect the conceptual unity at the heart of the theory of MWS and, at the same time, to show the freedom and diversity of approaches given space therein. Written for researchers and professionals in mathematics education, it offers plenty of concrete examples from different educational systems around the world to illustrate the theoretical concepts and show the applicability of the theory to practice and research.
