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Nota di contenuto	1 Surprising Singapore: Introduction -- Section 1: The Singapore School Mathematics Curriculum -- 2 Overview of Singapore's education system and milestones in the development of the system and school mathematics curriculum -- 3 The intended school mathematics curriculum -- 4 The enacted school mathematics curriculum -- 5 Beyond school mathematics -- 6 Singapore's participants in international benchmark studies: TIMSS, PISA and TEDS-M -- Section 2: Teaching and Learning Practices in Singapore Mathematics Classrooms -- 7 Problem solving in the Singapore school mathematics curriculum -- 8 Innovative pedagogical practices -- 9 Problems in real-world context and mathematical modelling -- 10 Patterns across the years: Singapore learners' epistemology -- 11 Metacognition in the teaching and learning of mathematics -- 12 Students' perspectives of good mathematics lessons, homework and how their teachers facilitate learning of mathematics -- 13 Low attainers and learning of mathematics -- 14 Use of technology in mathematics education -- Section 3: Teacher Education and Professional Development -- 15 The National Institute of Education and mathematics teacher education: Evolution of pre-service and graduate mathematics teacher education

-- 16 Exemplary practices of mathematics teachers -- 17 Continuing from pre-service: Towards a professional development framework for mathematics teachers in the 21st century -- 18 Models of teacher professional development -- 19 Teaching simultaneous linear equations: A case of realistic ambitious pedagogy -- 20 Productive teacher noticing: Implications for improving teaching -- 21 Reviewing the past, striving in the present and moving towards a future-ready Mathematics Education.

Sommario/riassunto

This book provides a one-stop resource for mathematics educators, policy makers and all who are interested in learning more about the why, what and how of mathematics education in Singapore. The content is organized according to three significant and closely interrelated components: the Singapore mathematics curriculum, mathematics teacher education and professional development, and learners in Singapore mathematics classrooms. Written by leading researchers with an intimate understanding of Singapore mathematics education, this up-to-date book reports the latest trends in Singapore mathematics classrooms, including mathematical modelling and problem solving in the real-world context.
