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Titolo	Physics Teacher Education : What Matters? / / edited by Joan Borg Marks, Pauline Galea, Suzanne Gatt, David Sands
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Descrizione fisica	1 online resource (217 pages)
Collana	Challenges in Physics Education, , 2662-8430
Disciplina	530.071
Soggetti	Physics - Study and teaching Teachers - Training of Science - Study and teaching Teaching Education in Physics Teaching and Teacher Education Science Education Didactics and Teaching Methodology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	1. Exploring Multimedia to Adapt Interactive Lecture Demonstrations (ILDs) for Home Use -- 2. QuILTs: Validated teaching-learning sequences for helping students learn quantum mechanics -- 3. Fostering physics content and pedagogy learning in future physics teachers via student authored YouTube-style video projects -- 4. How do prospective primary teachers exploit typical astronomy textbook images? -- 5. Teaching Physics in Kindergarten and Primary School: What Do Trainee Teachers Think of This? -- 6. A teacher training course on using digital media for acquisition, visualisation and 3D printing of complex data, and for fostering pupils' experimental skills -- 7. Implementing research-based intervention modules for teachers of Quantum Mechanics.
Sommario/riassunto	This book presents the most up-to-date research contributions focusing on progress in the field of physics education. It provides researches and results that are based on the most relevant matters in

physics teacher education and how these matters can be improved for the satisfaction of both teachers and learners. The work is the by-product of the collaboration between GIREP (the International Research Group on Physics Teaching) and the University of Malta. The contributing authors present close examinations of the following topics: ICT and multimedia in teacher education; experiments and laboratory work in teacher education; the role of quantum mechanics in teaching and learning physics; formal, non-formal and informal aspects of physics education at the primary level; strategies for pre-service physics teacher education at all levels; and in-service teacher professional learning strategies. The editors hope that many different stakeholders within scientific academia will find something of value in this compilation of the current most advanced ideas in physics education.