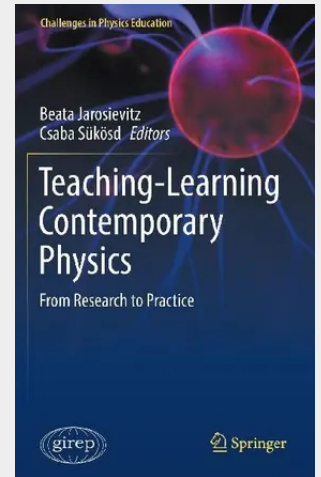


Teaching-Learning Contemporary Physics

This book presents research contributions focussing on the introduction of contemporary physics topics – mainly, but not exclusively, quantum physics – into high school curricula. Despite the important advances and discoveries in quantum physics and relativity which have revolutionized our views of nature and our everyday lives, the presence of these topics in high school physics education is still lacking. In this book physics education researchers report on the teaching and learning of quantum physics from different perspectives and discuss the design and use of different pedagogical approaches and educational pathways. There is still much debate as to what content is appropriate at high school level as well what pedagogical approaches and strategies should be adopted to support student learning. Currently there is a greater focus on how to teach modern physics at the high school level rather than classical physics. However, teachers still lack experience and availability of appropriate teaching and learning materials to support the coherent integration of Quantum Physics in high school curricula. All of the 19 papers presented in this book discuss innovative approaches for enhancing physics education in schools.

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160,49 €

149,99 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9783030787196

Medium: Buch

ISBN: 978-3-030-78719-6

Verlag: Springer

Erscheinungstermin: 17.09.2021

Sprache(n): Englisch

Auflage: 1. Auflage 2021

Serie: Challenges in Physics Education

Produktform: Gebunden

Gewicht: 612 g

Seiten: 285

Format (B x H): 160 x 241 mm

