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Sommario/riassunto	<p>The design and development of water turbines requires accurate methods for performance prediction. Numerical methods and modelling are becoming increasingly important tools to achieve better designs and more efficient turbines, reducing the time required in physical model testing. This book is focused on applying numerical simulations and models for water turbines to predict their performance. In this Special Issue, the different contributions of this book are classified into three state-of-the-art Topics: discussing the modelling of pump-turbines, the simulation of horizontal and vertical axis turbines for hydrokinetic applications and the modelling of hydropower plants. All the contributions to this book demonstrate the importance of the modelling and simulation of water turbines for hydropower energy. This new generation of models and simulations will play a major role in the global energy transition and energy crisis, and, of course, in the mitigation of climate change.</p>