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ISBN	981-10-2651-3
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Descrizione fisica	1 online resource (XVII, 291 p. 8 illus.)
Collana	IMSc Lecture Notes in Mathematics, , 2509-808X
Disciplina	512.74
Soggetti	Number theory Operator theory Functions, Special Sequences (Mathematics) Number Theory Operator Theory Special Functions Sequences, Series, Summability
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Part I Problems -- Chapter 1. Jacobi's q-series -- Chapter 2. The Modular Group -- Chapter 3. The Upper Half-Plane -- Chapter 4. Modular Forms of Level One -- Chapter 5. The Ramanujan $\tau$ -function -- Chapter 6. Modular Forms of Higher Level -- Chapter 7. The Petersson Inner Product -- Chapter 8. Hecke Operators of Higher Level -- Chapter 9. Dirichlet Series and Modular Forms -- Chapter 10. Special Topics -- Part II Solutions -- Chapter 1. Jacobi's q-series -- Chapter 2. The Modular Group -- Chapter 3. The Upper Half-Plane -- Chapter 4. Modular Forms of Level One -- Chapter 5. The Ramanujan $\tau$ -function -- Chapter 6. Modular Forms of Higher Level -- Chapter 7. The Petersson Inner Product -- Chapter 8. Hecke Operators of Higher Level -- Chapter 9. Dirichlet Series and Modular Forms -- Chapter 10. Special Topics.
Sommario/riassunto	This book introduces the reader to the fascinating world of modular forms through a problem-solving approach. As such, besides

researchers, the book can be used by the undergraduate and graduate students for self-instruction. The topics covered include  $q$ -series, the modular group, the upper half-plane, modular forms of level one and higher level, the Ramanujan  $\tau$ -function, the Petersson inner product, Hecke operators, Dirichlet series attached to modular forms and further special topics. It can be viewed as a gentle introduction for a deeper study of the subject. Thus, it is ideal for non-experts seeking an entry into the field. .

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