

1. Record Nr.	UNINA990000652990403321
Autore	Steinitz, Carl
Titolo	A systems analysis model of urbanization and change : an experiment in interdisciplinary education / Carl Steinitz, Peter Rogers
Pubbl/distr/stampa	Cambridge (Mass.) : The MIT press, copyr.1970
Descrizione fisica	78 p. : ill., 28 cm
Collana	MIT Report ; 20
Locazione	DINST DINTR
Collocazione	01 GB 6006 R1/138
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia

2. Record Nr.	UNINA9910590054403321
Autore	Matsushita Teruo <1948->
Titolo	Flux pinning in superconductors / / Teruo Matsushita
Pubbl/distr/stampa	Cham : , : Springer International Publishing AG , , 2022 ©2022
ISBN	9783030946395 9783030946388
Edizione	[3rd edition.]
Descrizione fisica	1 online resource (xvii, 493 pages) : illustrations
Collana	Springer Series in Solid-State Sciences Ser. ; ; v.198
Disciplina	537.623
Soggetti	Flux pinning Superconductors
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	From the Contents: Fundamental Electromagnetic Phenomena in Superconductors Various Electromagnetic Phenomena.-Critical State Theory Longitudinal Magnetic Field Effect Measurement Methods for Critical Current Density Flux Pinning Mechanism Flux Pinning Characteristics High-Temperature Superconductors MgB ₂
Sommario/riassunto	This book covers the flux pinning mechanisms and properties and the electromagnetic phenomena caused by the flux pinning common for metallic, high-T _c and MgB ₂ superconductors. The condensation energy interaction known for normal precipitates or grain boundaries and the kinetic energy interaction proposed for artificial Nb pins in Nb-Ti, etc., are introduced for the pinning mechanism. Summation theories to derive the critical current density are discussed in detail. Irreversible magnetization and AC loss caused by the flux pinning are also discussed. The loss originally stems from the ohmic dissipation of normal electrons in the normal core driven by the electric field induced by the flux motion. The influence of the flux pinning on the vortex phase diagram in high T _c superconductors is discussed, and the dependencies of the irreversibility field are also described on other quantities such as anisotropy of superconductor, specimen size and electric field strength. Recent developments of critical current properties in various high-T _c superconductors and MgB ₂ are

introduced. The 3rd edition has been thoroughly updated, with a new chapter on critical state model. The mechanism of irreversible properties is discussed in detail. The author provides calculations of pinning loss by the equation of motion of flux lines in the pinning potential and hysteresis loss. The readers will learn why the resultant loss is of hysteresis type in spite of such mechanism. This book aims for graduate students and researchers studying superconductivity as well as engineers working in electric utility industry.

3. Record Nr.

Titolo

UNISALENT0991002823609707536

SIAM journal on computing / Society for Industrial and Applied Mathematics. - 1972-

Pubbl/distr/stampa

Philadelphia, 1972-

ISSN

0097-5397

Altri autori (Enti)

Society for Industrial and Applied Mathematics

Lingua di pubblicazione

Inglese

Formato

Materiale a stampa

Livello bibliografico

Periodico

Note generali

Pubblicato anche in formato elettronico

Accesso elettronico: LE013 1972-2014