1. Record Nr. UNINA9910300078603321

Autore	Swischuk Leonard E
Titolo	Emergency musculoskeletal imaging in children / / Leonard E. Swischuk, Siddharth P. Jadhav
Pubbl/distr/stampa	New York : , : Springer, , 2014
ISBN	1-4614-7747-6
Edizione	[1st ed. 2014.]
Descrizione fisica	1 online resource (ix, 235 pages) : illustrations (some color)
Collana	Gale eBooks
Disciplina	618.9270754
Soggetti	Pediatric diagnostic imaging
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	General Considerations -- Infection/Inflammation and Infarction -- Tumors, Cysts and Tumor Mimickers -- Types of Fractures in Children -- Shoulder and Upper Arm Injuries of the Shoulder and Upper Humerus -- Elbow and Forearm -- Wrist and Hand -- Pelvis and Sacrum -- Hip and Femur/Femoral Shaft -- Knee and Leg -- Ankle and Foot -- Battered Child Syndrome/Non-Accidental Trauma.
Sommario/riassunto	This book is a practical guide to the radiologic evaluation of acute musculoskeletal injuries of the upper and lower extremities in children. It covers the detection of more subtle and frequently missed fractures and injuries such as buckle fractures, Salter Harris I and II fractures, and epiphyseal and metaphyseal fractures. It also emphasizes the assessment of soft tissues and periarticular fat pads, which can lead to discovery of the sites of bony injuries. Other pathologies that affect the musculoskeletal system, such as infections and tumors, are also discussed. It includes over 600 magnetic resonance, computed tomography, ultrasound, and radiographic images organized by anatomic region. Edited by Leonard Swischuk, a world-renowned expert in pediatric radiology and trauma imaging, Emergency Musculoskeletal Imaging in Children is a valuable resource for diagnostic radiologists, emergency physicians, residents, and fellows. Leonard E. Swischuk is a world-renowned expert in pediatric radiology and trauma imaging and has received numerous honors and awards throughout his career, including the American Roentgen Ray Society’s Gold Medal for Distinguished Service to

	Radiology, the American Board of Radiology’s Distinguished Service Award, and the Gold Medal of The Society for Pediatric Radiology. .

2.

Record Nr.	UNINA9911006994603321
Autore	Rosensweig R. E
Titolo	Ferrohydrodynamics
Pubbl/distr/stampa	Newburyport, : Dover Publications, 2013
ISBN	9781523106738 1523106735 9780486783000 0486783006
Descrizione fisica	1 online resource (612 p.)
Collana	Dover Books on Physics
Disciplina	538/.44
Soggetti	Magnetic fluids
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di contenuto	Cover; Title page; Copyright page; Dedication; Contents; Preface; 1 Introduction; 1.1 Scope of ferrohydrodynamics; 1.2 Ferromagnetic solids; 1.3 Magnetic fluids; 1.4 Ferromagnetic concepts and units; Definition of the field; External field of a dipole source; Magnetic force and torque on dipolar matter; Interaction energy of two dipoles; 1.5 Concepts of fluid mechanics; Continuity equation; Substantial derivative; 1.6 Generalized Bernoulli equation; 1.7 Stress tensor and its physical meaning; Force resulting from a stress tensor; Addendum: equivalence of dipolar and polar representations Comments and supplemental references2 Magnetic fluids; 2.1 Stability requirements; Stability in a magnetic-field gradient; Stability against settling in a gravitational field; Stability against magnetic agglomeration; Necessity to guard against the van der Waals attractive force; 2.2 Preparation of magnetic colloids by size reduction; 2.3 Preparation of ferrofluids by chemical precipitation; Magnetite precipitation with steric stabilization; Cobalt particles in an organic carrier; Charge-stabilized magnetite; 2.4 Other magnetic fluids;

Paramagnetic salt solutions; Metallic-base ferrofluid
2.5 Surface adsorption and steric stabilizationSteric repulsion mechanism; Net interaction curve; Dispersant structural guidelines; 2.6 Ferrofluid modification; Phenomenological basis; Carrier liquid exchange; Surfactant exchange; 2.7 Physical properties; Equilibrium magnetization: superparamagnetism; Magnetic relaxation; Viscosity; Concentrated suspensions; 2.8 Correlation phenomena; 2.9 Tabulated physical properties; Comments and supplemental references; 3 Electromagnetism and fields; 3.1 Magnetostatic field equations; Scalar potential; 3.2 Magnetic-field boundary conditions
3.3 Maxwell stress tensorPortrait of the Maxwell stress tensor; 3.4 Maxwell's equations; Integral equations; Differential equations; 3.5 Energy density of the electromagnetic field; 3.6 Transformed expression for the field energy; Comments and supplemental references; 4 Stress tensor and the equation of motion; 4.1 Thermodynamic background; 4.2 Formulation of the magnetic stress tensor; Stress tensor of a magnetizable fluid; What is the "pressure" in a magnetized fluid?; 4.3 Magnetic body-force density; Alternative general forms; Alternative reduced forms
Remarks concerning striction in compressible media4.4 Equation of motion for magnetic fluid; Alternative forms of the equation of motion; Comments and supplemental references; 5 The ferrohydrodynamic Bernoulli equation; 5.1 Derivation; 5.2 Boundary conditions; 5.3 Categories of equilibrium inviscid flows; 5.4 Applications of the FHD Bernoulli equation; Classical Quincke problem; Surface elevation in a normal field; Magnetic nozzle; Modified Gouy experiment; Conical meniscus; Origin of the radial force; Magnetic-fluid rotary-shaft seals; 5.5 Earnshaw's theorem and magnetic levitation
Simplified treatment of the levitation of a nonmagnetic body

Sommario/riassunto

The behavior and dynamics of magnetic fluids receive a coherent, comprehensive treatment in this high-level study. One of the best classical introductions to the subject, the text covers most aspects of particle interaction, from magnetic repulsion to quasi-stable equilibriums and ferrohydrodynamic instabilities. Suitable for graduate students and researchers in physics, engineering, and applied mathematics.