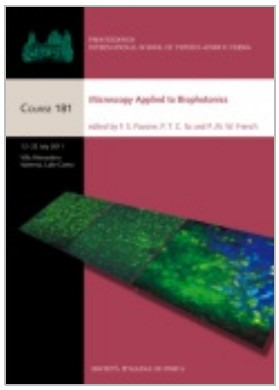
Editoria - luglio 2014

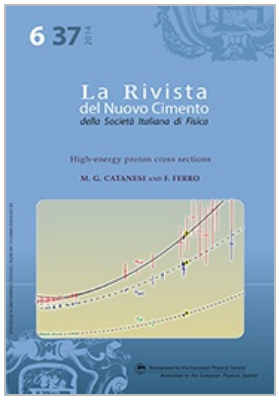
21-07-2014 http://www.primapagina.sif.it/article/113

Proceedings of the International School of Physics
"Enrico Fermi" – Course 181
Microscopy applied to biophotonics



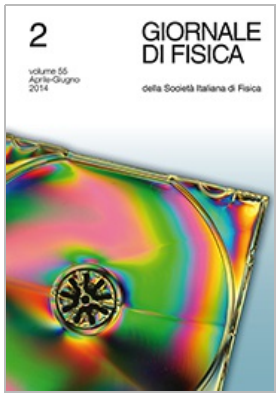
Biophotonics and microscopy are highly inter-related fields in terms of both technological development and biomedical applications. Recent advances in microscopy have been paralleled by new opportunities for biophotonics, including the investigation and manipulation of biological phenomena using light and its application to biomedicine. The lectures presented at the School spanned the basic science of imaging, through advanced microscopy techniques, to the state-of-the-art in biomedical imaging, and were complemented by seminars from world leaders in biophotonics.
More about

La Rivista del Nuovo Cimento – Vol. 37, N. 6 (2014)
High-energy proton cross-section
G. Catanesi and *F. Ferro*



The measurements of the total, elastic and diffractive proton-proton cross sections at high energies are shown. The article mainly focuses on the recent results of the experiments at the Large Hadron Collider and on the methods and techniques used to perform the measurements. The general properties of the scattering amplitude are also presented, together with the main aspects of some of the most successful theoretical models, whose predictions are compared with the experimental results.
More about

Giornale di Fisica Vol. 55, N. 2, Aprile-Giugno 2014



È in distribuzione il secondo fascicolo del vol 55, 2014.
Il fascicolo si apre con un interessante articolo di didattica che presenta l'introduzione di nuovi risultati di ricerca nei programmi scolastici per l'insegnamento della fisica. L'articolo prende spunto da una comunicazione su invito presentata dall'autrice al 99° Congresso della SIF a Trieste e tratta, come esempio di tale introduzione, il caso dei cristalli liquidi. Seguono due interessanti articoli di storia della scienza entrambi su illustri scienziati: il primo celebra il bicentenario della morte del matematico Joseph-Louis Lagrange, il secondo è dedicato al fisico Pietro Blaserna, fondatore e primo Presidente della Società Italiana di Fisica. In chiusura ancora un articolo di carattere didattico sul paradosso dei gemelli sia nella sua formulazione classica sia in quella relativa a uno spazio compatto, ed è corredato da alcune rappresentazioni grafiche non facilmente

reperibili in letteratura.
Scopri di più

EPJ A – Recent Highlight

Photocouplings at the pole from pion photoproduction
While the strong force is well understood at high energies in terms of perturbative QCD, the precise mechanism responsible for the confinement of quarks and gluons in color-neutral hadrons at low energies remains a mystery to date. The intermediate energy region is characterized by rich and complex spectra of excited baryons and mesons. Its phenomenology provides a key to our understanding of the fundamental properties of matter.
Read more

EPL – Highlights from Vol. 107, 2014

Another proof of loop-current order in high-temperature cuprate superconductors by C. M. Varma;
Gap function of hexagonal pnictide superconductor SrPtAs from quasiparticle interference spectrum by A. Akbari and P. Thalmeier;
Capillary collapse by Z. Wei and L. Mahadevan;
Terahertz transparency of optically opaque metallic films by Z. Song.

EPL Highlights are published in the first issue of each volume, *i.e.* four times a year, as well as in Europhysics News (EPN).