Rencontres Jeunes Physicien.ne.s 2024

vendredi 19 avril 2024 - vendredi 19 avril 2024

La Doua

Recueil des résumés

Contents

Introduction speech . . . 1

How to beat the 2nd law (at least 90% of the time) . . . 1

Active straining of Balkans : insights from spatial geodesy (InSAR, GNSS) . . . 1

Nanothermics: ultrafast heat exchange at solid and liquid interfaces . . . 1

Probing the Universe with galaxy clusters : the special case of exotic strong lensing . . . 1

Active Spinning Matter . . . 1

Optical Amplifier for Space Application . . . 1

Optimal control of the navigation of brownian particles in disordered environments . . . 1

Exploring neutrino interactions with DUNE experiment . . . 2

Box modelling of the Bistable Dynamics of Ocean Circulation under Antarctic Ice Shelves 2

Slowing-down of the relaxation time during subcritical rupture in paper and filled elastomers . . . 2

Observing Earth-like exoplanets with future giants telescopes . . . 2

Comment les virus entrent-ils dans le noyau de nos cellules ? Propriétés géométriques et mécaniques de l'interaction d'un virus avec un pore biologique . . . 2

Sheared and compressed granular media, an analogue experiment to study earthquakes dynamic . . . 2

Can anisotropic electrical conductivity lead to dynamo action in spiral-arm galaxies? . . . 2

Design of a phantom for the development of a smart textile device for lymphedema monitoring . . . 3

Online Radiation Induced Attenuation measurements of Radiophotoluminescence Dosimeters irradiated with X-rays: Dose rate dependence at high doses . . . 3

Physics searches at CMS . . . 3

Fabien Vialla's artistic debut . . . 3

Session 1 / **25**

Introduction speech

Session 1 / **26**

How to beat the 2nd law (at least 90% of the time)

Session 3 / **27**

Active straining of Balkans : insights from spatial geodesy (InSAR, GNSS)

Session 1 / **28**

Nanothermics: ultrafast heat exchange at solid and liquid interfaces

Session 1 / **29**

Probing the Universe with galaxy clusters : the special case of exotic strong lensing

Session 1 / **30**

Active Spinning Matter

Session 2 / **31**

Optical Amplifier for Space Application

The aim of the thesis work is to investigate the behavior of rare-earth-based optical amplifiers in a harsh environment from the perspective of ionizing radiation, such as that which characterizes space applications. To achieve this, an experimental/simulative approach is used to gain a comprehensive understanding of photonic systems.

Session 2 / **32**

Optimal control of the navigation of brownian particles in disordered environments

Session 2 / **33**

Exploring neutrino interactions with DUNE experiment

Session 2 / **34**

Box modelling of the Bistable Dynamics of Ocean Circulation under Antarctic Ice Shelves

Session 2 / **35**

Slowing-down of the relaxation time during subcritical rupture in paper and filled elastomers

Session 3 / **36**

Observing Earth-like exoplanets with future giants telescopes

Session 3 / **37**

Comment les virus entrent-ils dans le noyau de nos cellules ? Propriétés géométriques et mécaniques de l'interaction d'un virus avec un pore biologique

Session 3 / **38**

Sheared and compressed granular media, an analogue experiment to study earthquakes dynamic

Session 4 / **39**

Can anisotropic electrical conductivity lead to dynamo action in spiral-arm galaxies?

Session 4 / **40**

Design of a phantom for the development of a smart textile device for lymphedema monitoring

Session 4 / **41**

Online Radiation Induced Attenuation measurements of Radiophotoluminescence Dosimeters irradiated with X-rays: Dose rate dependence at high doses

Session 4 / **42**

Physics searches at CMS

By David Amram et al

Session 3 / **43**

Fabien Vialla's artistic debut