

SEMINARS

SEMINAIRES

Lundi 19 juin

PRESENTATION TECHNIQUE

10h00 16h00 – parking près bât. 904, site de Prévessin

Kemppi Road Show: le soudage et ses applications

par Techniques de soudage, Hultegger S.A. (F/CH/SF)

Kemppi vous propose:

- des démonstrations, soudage ARCELECTRODES, semi auto MIG/MAG, le soudage MIG PULSE, acier inox, aluminium SANS PROJECTION, soudage MIG longue distance, soudage TIG, acier, inox, aluminium
- un logiciel pour maîtriser vos coûts de soudage
- un problème de soudage? N'hésitez pas, apportez les éléments, nous traiterons cette difficulté

Langues : allemand, anglais, finnois, français

Renseignements : M. Diraison / FI-A / 4585

Monday 19 June

TECHNICAL SEMINAR

at 11.00 hrs – ECP Conference Room, bldg 13/2-005

Leakless Cooling System

by Michel BOSTEELS / CERN-MT

From the beginning of the electronic era, the heat released per unit volume has continuously increased. This talk presents a well proven liquid cooling system, running without any risk of leaks, specially designed for electronic racks and detectors. This system is already used in many CERN experiments.

Wednesday 21 June

THEORETICAL SEMINAR

at 14.00 hrs – TH Conference Room

Non-minimal Higgs sectors : the decoupling limit and its phenomenological implications

by H.E. HABER / CERN

In models with a non-minimal Higgs sector, the lightest scalar state is often a neutral CP even Higgs boson, whose properties are nearly identical to those of the minimal Higgs boson of the Standard Model. In such a scenario, the other Higgs scalars are significantly heavier than the Z; their effects rapidly decouple from the low-energy theory. The decoupling limit of the most general two-Higgs doublet model is formulated. After reviewing the present limits on non-minimal Higgs sector parameters (including the ratio of vacuum expectation values, $\tan \beta$) I explain why the detection of evidence for a non-minimal Higgs sector in the decoupling limit presents a formidable challenge for Higgs searches at present and future colliders.

Thursday 22 June

CERN ASTROPHYSICS SEMINAR

at 16.30 hrs – Auditorium

X-ray and gamma-ray radiation from active galactic nuclei and the cosmic background

by Andrzej ZDZIARSKI / N. Copernicus Astronomical Center, Warsaw, Poland

I present recent results on the X-ray/gamma-ray spectra of nearby active galactic nuclei (so-called Seyfert galaxies), the physical processes responsible for the emission, and the contribution of those galaxies to the cosmic X-ray and gamma-ray backgrounds. There is evidence for the origin of the X-ray and gamma-rays from Compton scattering of thermal UV radiation from a cold accretion disk as well as for reprocessing of that up-scattered radiation by the same cold disk. The emission of active galactic nuclei when integrated to a redshift of about 3 can account for the cosmic X-ray background. The MeV cosmic gamma-ray background remains unexplained so far.

Friday 23 June

TECHNICAL SEMINAR

at 10.00 hrs – AT Auditorium, bldg 30, 7th floor

Sol-gel optical thin films for an advanced megajoule-class laser ICF-driver

by Philippe BELLEVILLE & Hervé FLOCH /
CEA – Centre d'Etudes de Limeil-Valenton,
Villeneuve-Saint-Georges, France

The Centre d'Etudes de Limeil-Valenton is currently involved in a project which consists of the construction of a 2 MJ/500 TW (351 nm) pulsed Nd:glass laser and which will be devoted to Inertial Confinement Fusion (ICF) research in France.

With 240 laser beams and almost 10 000 m² in coated area required, the proposed megajoule-class laser will be the largest laser system ever built in the world. In such a system, laser-induced damage thresholds as high as 18 J/cm² at 1053 nm and 13 J/cm² at 351 nm with 3.6 ns pulse duration are required. Coating the lenses, flashlamps, blast-shields, harmonic converters, debris-shields, windows and cavity end-mirrors by the room-temperature and atmospheric pressure sol-gel process is an effective route and will represent more than 96% of the whole coated area. In addition to ammonia-treated silica single-layer antireflective porous coatings and broadband multilayer antireflective coatings, silica/zirconia-based mirrored coatings were successfully prepared using different liquid-media coating techniques.

To satisfy the coating demand, coating equipments and a 1000 m² sol-gel coating production plant are under construction at REOSC-Group SFIM company in order to start producing within schedule and cost goal.

Friday 23 June

MEETING ON PARTICLE PHYSICS PHENOMENOLOGY

at 14.00 hrs – TH Conference Room

QCD sum rules and heavy meson exclusive decays

by A. KHODJAMIRIAN / University of Munich &
Yerevan Physics Institute

Among recently developed approaches, the so-called light-cone QCD sum rules provide a very economical and reliable way to obtain various hadronic matrix elements. In this talk I will discuss applications of this method to the $B \rightarrow \pi$ and $D \rightarrow \pi$ form factors, to the $B^* B \pi$ and $D^* D \pi$ coupling constants, and to the exclusive weak radiative decays of heavy mesons. Using these results I will examine the heavy mass dependence and the pole dominance model for heavy-to-light form factors. Finally, an estimate of the non-factorizable amplitude of the decay $B \rightarrow J/\psi K$ obtained in the framework of QCD sum rules will be presented.

Tuesday 27 June

TECHNICAL PRESENTATION

at 10.00 hrs – CN Auditorium, bldg 31/3-005

The process group approach to reliable distributed computing

by Yves EYCHENNE / Regional Business Manager, Isis Distributed Systems, Paris, France

Organiser : S. Cannon / CN / 5036

Wednesday 28 June

TECHNICAL PRESENTATION

at 10.00 hrs – CN Auditorium, bldg 31/3-005

Software solutions for VME under Unix

by Lionel GELY / Digital Equipment Corporation, CSS, Annecy

Organiser : S. Cannon / CN / 5036

Wednesday 28 June

COMPUTING SEMINAR

at 16.00 hrs – CN Auditorium, bldg 31/3-005

Reusable documents : preparing for the LHC-era

by Michel GOOSSENS & Janne SAARELA / CERN-CN

Organiser : G. Folger / CN

Thursday 29 June

TECHNICAL PRESENTATION

at 10.00 hrs – CN Auditorium, bldg 31/3-005

The Product Data and Document Management System “CADIM”

by Mr. PROCHNAU & Mr. ZAGEL / Eigner + Partner AG, Egerkingen/CH

Organiser : S. Cannon / CN / 5036

FOR INFORMATION / POUR INFORMATION

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Wednesday 21 June

SEMINAR ON PARTICLE PHYSICS

at 17.00 hrs – Stückelberg Auditorim

Phenomenology of quarkonia production hadronic collisions

by M. MANGANO /CERN

We present some recent developments in the theory of Quarkonium production in high energy hadronic collisions. Recent experimental data have seriously challenged the standard theory, and promoted the subject to one of the outstanding open questions in QCD. We shall review the available data and show how these have driven the theoretical understanding. While the most recent theoretical advances have partly accommodated the initial discrepancies, several interesting points remain to be understood.

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**ENSEIGNEMENT GÉNÉRAL
Tél. 5811**

Jeudi 22 juin

à 13.00 h – Amphithéâtre
Science pour tous
par Rafel CARRERAS