

SEMINARS

SEMINAIRES

Monday 22 May

TECHNICAL PRESENTATION

09.00-12.00 hrs – CN Auditorium, bldg 31/3-005

CAE for Signal Integrity and Field Calculation

by : J. PARKES / Ansoft Inc., USA

A. PATTERSON / Analogy Inc., Europe

P. HUET / CERN CN-CE

The technological challenges of the LHC are forcing many designers to sharpen their skills and tools. Present rule-of-thumb methods must be replaced by more efficient and reliable techniques. More accurate analytical tools and methods for validating and optimising design-concepts are playing an increasingly important role. The seminar addresses designers of accelerator equipment and particle detectors in general, and designers of high-speed analog and digital electronics in particular. Ansoft and Analogy will be presenting a solution for accurate modelling and simulation of electrostatic and electromagnetic fields. P.Huet from the CN-CE Analog CAE Section will present preliminary results from an evaluation of Ansoft's Signal Integrity tools. Using the Ansoft Maxwell tool set, users can define geometries, materials and boundary conditions of real-life components, and from this estimate the static or dynamic electrical fields surrounding the device. An equivalent model is then generated for the Analogy Saber simulator (and SPICE derived simulators), allowing the characterised model to be simulated together with other mixed-signal, mixed-systems elements.

This seminar will represent the state of the art in finite element and mixed-systems simulation and will include both theory and live demonstrations.

09.30-10.30 The Maxwell Signal Integrity (SI) Software Line,
by Ansoft and Analogy

This presentation focuses on Signal Integrity and it is targeted at designers of high-speed electronic systems.

10.30-11.30 The Maxwell Electro Magnetic (EM) Software Line,
by Ansoft & Analogy

The Maxwell EM family of products addresses engineers involved with magnetics, power systems, high-voltage and electromechanical design.

11.30-12.30 Evaluation of Maxwell SI, by P.Huet CN-CE-AE

First results from an evaluation will be presented, examples are microstrip gas chamber (MSGC), PCB.

Organizer : Rudi Zurbuchen CN

Monday 22 May

DETECTOR SEMINAR

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

Radiation Hardness Study of Silicon Detectors for the LHC

by Steven BATES / CERN - ECP

Silicon detectors at the future LHC experiments will have to withstand very high levels of radiation never before

experienced in high energy physics experiments. We are therefore performing systematic studies on the change of detector performance due to radiation damage, in particular damage due to hadrons. Silicon detectors with various resistivities have been irradiated at different temperatures with 1 MeV neutrons, 24 GeV protons and 200 MeV pions. Measurements made during irradiation and up to 1 year after irradiation show that the long-term behaviour will dominate during the expected 10 years of operation at the LHC. This presentation will show the behaviour of full depletion voltage and leakage current up to 1 year after irradiation in real-time and up to more than 10 years after irradiation using special heating techniques to accelerate annealing processes. The impurities in the silicon starting material are now known to be crucial and an exciting future program of work will be presented.

Monday 22 May

PPE SEMINAR

at 16.30 hrs – Auditorium

Delphi luminosity measurement with the new luminosity monitor

by Marco PAGANONI / Milano University

An accurate measurement of the luminosity at LEP is essential for electroweak precision tests. In the DELPHI experiment, a new luminometer named STIC (Small angle Tile Calorimeter) was installed in 1994. It consists of 2 cylindrical modules of lead scintillator calorimeter, built with the "Shashlik" technique and positioned at small angles ($29 \text{ mrad} < \theta < 185 \text{ mrad}$) with respect to the beams.

The cross section of the Bhabha scattering process accepted inside STIC is known with high precision, thanks to a good control of the internal geometry of the calorimeter and to the use of an accurately machined tungsten mask for the definition of the inner edge.

The uniformity of response and the good energy resolution provide a sharp cut against machine backgrounds.

Thanks to the good STIC performance in 1994 and to the use of the mask technique, DELPHI reduced systematics at the level of 0.1 % in the luminosity measurement.

A detailed description of the STIC detector, the operational performance of the calorimeter and the luminosity measurement at the DELPHI interaction point for 1994 data taking will be given.

Tuesday 23 May

TECHNICAL PRESENTATION

at 11.00 hrs – CN Auditorium, bldg 31/3-005

Introduction to Lotus Notes

by A. HERGER / Lotus Development Switzerland Ltd.

Lotus Notes has defined a new breed of software called "groupware" that enables an organization to realise the full potential of its networks and its people. Distributed teams can work together in smarter and more productive ways.

Notes is a client/server environment that allows users to communicate securely over a local area network. It combines

an application development environment, a document database, and a sophisticated messaging system, giving you the power to create custom applications for improving the quality of everyday processes in areas like product development and maintenance, customer service, distribution and account management.

The agenda of the presentation is :

- Lotus Development Corp. then and now
- Lotus Notes development history.
- Architecture of Lotus Notes :
 - (i) Distributed compound document database
 - (ii) Replication
 - (iii) Security
 - (iv) Application development environment.
- Improvement of development processes (vs. tasks)
- Team productivity focus (vs. individual productivity focus)
- Lotus Notes market position, reference sites
- ROI (Return on investment) case studies

Organiser : S. Cannon / CN / 5036

Mardi 23 mai

PRESENTATION TECHNIQUE

13h30-17h00 – parking PTT contre bât. 63

VERO - Electronics Road Show : armoires électroniques et appareillage connexe

Exposition/démonstration par Vero Electronics
(CH/D/GB)

Liste des produits :

- baies 19", châssis, coffrets 19", boîtiers, backplanes (VXI, Futurebus+, Multibus, Multibus II, VME, STEbus, G-64, G-96, Custommade), cartes Prototype, Microrack : SMM Système Microrack Modulaire (GB)
- conversion d'énergie: alimentations pour châssis 19", alimentations linéaires, alimentations à découpage en châssis ouvert et capotées, convertisseurs DC-DC encapsulés (D)
- A/C, réseaux (D)

Langues : allemand, anglais, français

Renseignements : M. Diraison / FI-A / 4585

Tuesday 23 May

CERN ASTROPHYSICS SEMINAR

at 16.30 hrs – Auditorium*

NOT as a supernova : how most stars die

by H. HABING / Leiden University, Netherlands

Only a small fraction of all stars (10%; 2%?) die as a supernova. Most stars die more gradually : they lose the mantle of gas that surrounds the inert core by a gradual ejection of matter. When the mantle is almost exhausted the stars become, but only for a short time, a planetary nebula; thereafter a white dwarf remains.

For a long time the transition phase, when the star is still a red giant but has begun to eject matter at a high rate, has remained unclear. Stellar evolution codes are not capable to simulate the rapid mass loss process. Luckily observational techniques in the infrared and at mm wavelengths have improved so much that in the last ten years totally new observations become available. While not all problems surrounding the slow death of a star have been solved, we begin to see and understand the major features of this fatal evolution.

* Tea & coffee will be served at 16.00 hrs.

Wednesday 24 May

THEORETICAL SEMINAR

at 14.00 hrs – TH Conference Room

Phenomenology of light gauginos

by Glennys FARRAR / Rutgers University

Wednesday 24 May

AC SEMINAR

at 15.30 hrs – AT Auditorium, bldg 30, 7th Floor

Colloquium in honour of G. Plass on the occasion of his retirement

15.30 hrs Highlights from the PS days – G. Munday

16.00 hrs Linac 2 – H. Haseroth

16.30 hrs LEP – E. Picasso

Friday 26 May

MEETING ON PARTICLE PHYSICS PHENOMENOLOGY

at 14.00 hrs – TH Conference Room

Strange antibaryons from Pb - Pb collisions at $s = (1.8 - 3.6 \text{ TeV})^2$

by Johann RAFELSKI / University of Arizona, Tucson

Observation, and the properties, of the enhanced strange antibaryon abundances in S-W/Pb interactions at SPS indicate the formation of a high-density hadronic phase. In order to ascertain if this is the sought-after deconfined QGP state, we propose to explore the energy dependence in Pb-Pb collisions in the accessible SPS range of energies.

Wednesday 31 May

THEORETICAL SEMINAR

at 14.00 hrs – TH Conference Room

Title to be announced

by Gabriele VENEZIANO / CERN

Friday 2 June

MEETING ON PARTICLE PHYSICS PHENOMENOLOGY

at 14.00 hrs – TH Conference Room

Title to be announced

by H. HABER / CERN

Wednesday 7 June

LEP EXPERIMENTS COMMITTEE

at 09.00 hrs – Auditorium

Open session

Reports on the LEP machine

- 09.00-09.30 LEP status and bunch train operation (*Andre Faugier*)
- 09.30-10.00 Scenario for the 1995 Z⁰ scan (*Tiziano Camporesi*)
- 10.00-10.30 Progress with the superconducting rf system (*Daniel Boussard*)
- 10.30-11.00 Coffee break

LEP 2 energy upgrade

- 11.00-11.30 LEP 2 energy scenarios (*Steve Myers*)
- 11.30-12.00 Theoretical overview (*Guido Altarelli*)

12.00-12.30 LEP experimental aspects (*Jean-François Grivaz*)
 12.30-13.00 LHC experimental aspects (*Daniel Froidevaux*)
 13.00-14.00 *Lunch*

Closed session

at 14 00 hrs – 6th floor Conference Room, Main building

Friday 9 June

PLENARY ECFA MEETING

at 10.00 hrs – **DESY**

- 10.00 1. Approval of the Draft Minutes of the Fifty-sixth Plenary ECFA Meeting ECFA/94/167/Draft
 2. Approval of the Draft Agenda
 3. Chairman's Report
 4. Election of the ECFA Chairperson 1996 - 1998

Coffee

- 11.00 5. Linear Colliders Based on Low Frequency Cavities (R. Brinkmann)
 6. Status of the Technical Developments for SBLC and TESLA (M. Leenen)
 7. Report of the ECFA Advisory Panel on New Techniques for Particle Acceleration (S. Tazzari)
 8. Introduction to DESY Activities (B.H. Wiik)

13.00 Lunch

Visit of DESY

- 15.30 9. Status Report on the LHC Project (C.H. Llewellyn Smith)
 10. Status Report on LEP and LEP2 (K. Hübner)
 11. Draft Report : Sociology of Large Experiments (B. Stugu)
 12. Any Other Business

17.00 End of meeting.

**EDUCATION
 SERVICES
 EDUCATIFS**

**ENSEIGNEMENT GÉNÉRAL
 Tél. 5811**

Jeudi 1^{er} juin

à 13.00 h – Amphithéâtre

Science pour tous

par Rafel CARRERAS

Pas de séance le 25 mai, jour de l'Ascension.

**MANAGEMENT & COMMUNICATION
 SEMINAIRES PREVUS DE MAI A SEPTEMBRE 1995
 SEMINARS FORESEEN FROM MAY TO SEPTEMBER 1995**

Madeleine Pincott



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Situation : 12.5.1995

Dates	Séminaires/Seminars	Lang.	Durée Duration	Disponibilité Availability
22, 23 mai	Techniques d'exposé et de présentation	F	2 jours	complet
22, 23 mai	Communiquer efficacement, 1 ^e partie	F	2 jours	2 places
1, 2 juin	Communiquer efficacement, 2 ^e partie	F	2 jours	2 places
19, 20 juin	Communiquer efficacement, 2 ^e partie	F	2 jours	1 place
21, 22 juin	Pratique de la supervision, séminaire de base	F	2 jours	4 places
26, 27 June	<i>Supervision in practice, follow up</i>	E	2 days	3 places
27, 28 juin	Pratique de la supervision, suivi	F	2 jours	8 places
31 August & 1 September	<i>Communicating effectively, part 1</i>	E	2 days	full
20, 21 September	<i>Communicating effectively in your team</i>	E	2 days	4 places
27, 28 September	<i>Communicating effectively, part 2</i>	E	2 days	1 place

Si vous désirez vous inscrire pour un de ces séminaires prenez contact avec votre responsable hiérarchique et votre DTO.

If you would like to enrol in one of the following seminars, please contact your supervisor and your DTO.