

Thursday 8 February

CERN COLLOQUIUM

at 16.30 hrs – Auditorium

The Companion of the Star 51 Pegasus

A Jupiter in Hell

by Michel MAYOR / Geneva Observatory

Friday 9 February

TECHNICAL PRESENTATION

at 10.00 hrs – CN Auditorium, bldg 31/3-004-5

MOTOROLA Technical Presentation

by Paul STEVENS / Marketing Program Manager Europe

Information: C. Moine / ECP / 5035

Organiser: S. Cannon / CN / 5036

EDUCATION SERVICES EDUCATIFS

ENSEIGNEMENT GÉNÉRAL

Tél. 5811

Jeudi 1 février

à 13.00 h – Amphithéâtre

Science pour tous

par Rafel CARRERAS

ENSEIGNEMENT ACADEMIQUE ACADEMIC TRAINING

Françoise Benz ☎ 3127

Informations détaillées sur le WWW

Information about the lectures on WWW

<http://www.cern.ch/Training/>

5, 6, 7, 8 & 9 February

11.00 to 12.00 hrs – Auditorium

**A Phenomenological Theory of World Population Growth
and Global Problems**

by S. KAPITZA / Institut for physical problems,
Moscow, Russia

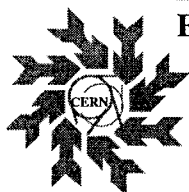
Of all global problems world population growth is the most significant one. To describe this process in its past and project it into the future a mathematical model is worked out. It treats the world population as an entity, seen as an open and evolving dynamic system. The approach is phenomenological and growth over very many generations is assumed to be selfsimilar and described by scaling. In terms of kinetics, the growth rate is proportional to the square of the total number of people and the nonlinear hyperbolic growth describes the sum outcome of all mechanisms that contribute to our development in a collective interactive process.

The model gives an estimate of the beginning of human evolution c.a. 4.4 million years ago and of the total number of people who ever lived c.a. 100 billion. In the scope of the model large scale cycles defined by history and anthropology are shown to be uniformly spaced in time on a logarithmic scale, expressing and inherent periodicity. As we approach the present, this progression of cycles is now terminated by the demographic transition. This is a singular epoch in all human development, a very rapid transition centered on a year 2007 and is to lead to a fundamental change in the age profile of population with profound effects on society. In the near future this critical period will result in an ultimate levelling off of the world population at c.a. 14 billion. The transition is seen to be determined by the intrinsic dynamic properties of the global population system, rather than by an external lack of resources.

The model provides a consistent quantitative framework of interest for anthropology and history, demography and sociology, population genetics and human evolution. As an attempt of an interdisciplinary study it provides insight into the systemic behaviour of the world population, seen as an entity at a decisive time of our growth and can lead to an understanding of the trends and stability of development both on a long term scale encompassing the whole human story and the present predicament of humankind.

Consideration will be given to global problems of resources, energy and sustainable development.

The concepts and ideas of the Club of Rome will be examined and the agenda for the future of humankind considered in some detail.



ENSEIGNEMENT TECHNIQUE TECHNICAL TRAINING

Monique Duval ☎ 44.60

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Informations sur les cours, dates et places disponibles sur WWW :
Information about the courses, dates and places available on WWW :
<http://www.cern.ch/EducTech/>

Technical Seminars

Supporting Windows NT 3.51

NatSoft SA

March 11-15, 1996

5 days

This course provides a foundation for supporting Microsoft Windows NT operating system version 3.51, including the skills to configure, customise, optimise, integrate networks, and troubleshoot.

It is aimed at persons who have

- a working knowledge of the Microsoft Windows operating system : creating groups in Program Manager, configuring the desktop, using Control Panel, moving and sizing Windows and switching between tasks.
- an operational understanding of MS-DOS operating system, memory, hard-disks, type of central processing units, communication ports, printer ports, display adapters and pointing devices.
- an understanding of the basic functions and terminology of a Microsoft network : user, accounts, group accounts and shared resources.
- an understanding of basic network concepts : network protocols, workstations, servers, local area networks and network adapter cards.
- experience supporting networks end users.

At the end of the course, the participants will be able to

- describe the product system strategy
- install Windows NT Workstation 3.51
- configure the operating system environment
- create and manage user and group accounts
- manage file systems and resources
- protect local resources
- secure the system
- configure and control the boot process
- identify and implement network resources
- install, configure and support printers and printer resources
- interoperate with IPX and TCP/IP networks
- implement Remote Access Service (RAS)
- optimise system performance
- join a domain
- run and support applications
- determine the appropriate course of action to take for common problems

AFS for end-users

Transarc Corporation

March 27 or 28, 1996

1 day

This course teaches the basics of protecting data, creating and utilizing AFS groups, and accessing data in the AFS distributed file system. Fundamental commands needed to work effectively in AFS are presented and hand-written exercises reinforce concepts, terminology and skills learned in class.

The following topics will be covered :

- Interpreting AFS command syntax
- Directory/file protection based on AFS access rights
- Creating and maintaining Access Control Lists (ACLs)
- Creating AFS protection groups
- Troubleshooting problems in the environment
- Interpreting AFS command syntax
- Issuing security commands for identification and password change
- Accessing AFS data

The participants must be familiar with the UNIX environment, including day-to-day commands such as ls, cat and cd. Knowledge of the UNIX file system/directory structure is beneficial.

AFS System Administration

Transarc Corporation

March 20-21-22, 1996

3 days

This course prepares an administrator to plan, install, manage and recover the AFS distributed file system. It teaches the set of background terms, skills and concepts needed to be an effective, proactive AFS administrator. It also explores steps to take troubleshooting system problems.

The following topics will be covered :

- Daily tasks of managing the AFS system
- Planning for installation and environment growth
- Managing security issues for a distributed file system
- Troubleshooting methodology for AFS cells
- Managing client machines
- Managing volumes
- Manipulation of file server processes
- AFS backup system
- Account manipulation
- Package
- NFS/AFS Translator
- Understanding training needs for end users

Formal UNIX system administration training and/or equivalent experience is needed. Familiarity with distributed file systems is beneficial.

(cnt'd overleaf)

If you wish to follow one of these courses, please fill in an "Application for Training" form available from your Divisional Secretariat or from the Divisional Training Officer (DTO). A financial contribution of CHF 200,- per day (or hour-equivalent) and per person will be charged to the division.

DFS System Administration

Transarc Corporation

March 25-26, 1996

2 days

This course teaches the functionality of DFS and the different components which comprise the distributed file system. The participants will learn about the file system at a high internal level, which is necessary to effective troubleshooting and for making informed configuration and administration decisions. Besides providing important background information, it focuses on system administration tasks, such as fileset administration, client and server machine administration. Where appropriate, it gives recommendations on topics such as fileset naming, location and replication.

The following topics will be covered :

- Introduction to DFS
- Review of user-level DFS commands
- Client and server machine administration
- Fileset administration
- The DFS backup system
- DFS account administration
- Troubleshooting

The participants are supposed to have a sound experience on UNIX system administration, DCE system administration class or equivalent experience.

BaBar C++ programming

Paul Kunz

March 18-22, 1996

(6 x 2 hours)

The BaBar C++ course was developed for the BaBar collaboration. It is designed for a target audience of particle physicists who are active in programming simulation, reconstruction and/or analysis code.

The course is not a "hands-on" style course. Only one practical exercise is suggested in the lectures. The students are expected to take their own initiatives in getting started.

The course consists of six lectures of 2 hours each, the first two lessons being given on March 18 (morning and afternoon). Participants should be prepared to spend time during the course's week reading the text book and reviewing the lectures. A late afternoon informal discussion session can be organised.

The only prerequisite is experience in computer programming. In particular, no prior knowledge of the C language is needed. Programming experience entirely in Fortran is adequate.

The following topics will be covered (one topic by session) :

- Basic declarations, conditional structure, operators
- Pointers and functions
- Introduction to classes including operator overloading using 3-vector from CLHEP as example
- More on classes with arrays and lists, including templates
- Introduction to inheritance and complete physics analysis
- More on inheritance with polymorphic classes from Gismo

HTML Scripting : hands-on

Natsoft SA

March 28-29, 1991

2 days

This course will first introduce the capabilities, history and syntax of the HyperText Markup Language for creating WEB pages that can be viewed using any standard Web browser. It will teach how to author multimedia Web pages that include text, graphics, images and video clips as well as link to other pages on the WWW. Then, more technical aspects will be presented about various HTML standards and editors and how to create, format and incorporate interactive forms in the Web pages. It includes instruction on conducting script validation and testing and on incorporating navigational link anchors in Web pages.

The following topics will be covered :

- **Overview of HTML**
What is HTML ? - Hypertext and Hypermedia - Web browsers - URLs.
- **Markup Tags and character entities**
HTML tags - structuring tags - style tags - list structures - horizontal rule tag - character entities.
- **Incorporating images**
Image tag - incorporating images - incorporating graphics and icons.
- **Incorporating Hyperlinks**
Incorporating hyperlinks - HREF attributes using complete URLs - HREF attributes using partial URLs - NAME references.
- **Introduction to HTML Forms**
Form tag - input tag.
- **HTML Standards**
HTML 1.0, 2.0, 3.0 standards - HTML+ standards - Netscape extensions to HTML - beyond the HTML 3.0.
- **HTML editors and document conversion**
HTML editors - automated WYSIWYG tools - document conversion.
- **Netscape extensions and other issues**
Font sizing - background images - background color - text color - anchor color - title animation - transparent GIFs - center and blink - ordered list attributes.
- **Tables**
Basic elements - rows, columns and borders - browser dependency - integrating into Web pages - unusual table structures.
- **HTML forms**
Posting methods - text fields - mailto tags - buttons, checkboxes and lists - submit and reset buttons.
- **Script testing and validation**
Cross-platform - cross-browser - browser version - display of text and graphics - HTML extensions
- **Link anchors and navigation**
Home page button - relative forward and backward button - mailto tag - combinaison HREF/Name links

The participants are supposed to have a sound knowledge of using Windows, Internet and of navigating in WWW.

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