

SEMINARS SEMINAIRES

Wednesday 30 July

THEORETICAL SEMINAR

at 14.00 hrs – TH Conference Room

Thermodynamics of a gas of finite size particles obeying Fermi-Bose-Boltzmann statistics

Based on work done by a collaboration :

J. CLEYMANS, H. ENGLERT,

J. RAFELSKI, A. SCHNABEL /

University of Cape Town, R.S.A.,

and R. HAGEDORN / CERN

Motivated by the need to clear up some of the many missing details of the presumed hadron-QG (quark-gluon) phase transition, we set up a formalism (using the 'pressure ensemble') which allows us to describe a relativistic gas consisting of hard-finite-size particles (Fermi-Bose-Boltzmann). The result suggests how to generalize it to soft (MIT bag-like) particles with strong interactions between them. A formal solution can be written down, whose actual evaluation would, however, require making some model assumptions and then straightforward numerical computation.

Wednesday 30 July

DD SEMINAR

at 14.00 hrs – DD Auditorium

bldg 31, 3-005

PLEASE NOTE UNUSUAL TIME!

SPARK – A highly parallel computer for molecular dynamics simulations

by W.E. RUDGE / IBM San Jose Research

SPARK stands for Scientific Processor ARray Kernel and is a special purpose computer which has been developed jointly by the Physical Science and Computer Science Departments at the IBM Almaden Research Center. The processor is designed to function efficiently in a message passing array computer aimed at naturally parallel, computationally intensive, scientific and engineering problems. Although it was motivated by large problems in molecular dynamics, it is fully programmable and could be used for a number of problems in computational physics. One prototype SPARK has been built and is running. It has run the kernel of the molecular dynamics problem at nearly twice the speed of an IBM 3081. The plan is to build an array of 16, 100 or 256 SPARKs, connected by a high speed synchronous, full permutation network to attack molecular dynamics simulations of large systems. This informal talk will discuss my experience programming the SPARK, the architecture of the machine and will include a simple introduction to the physics of the molecular dynamics.

Friday 1 August

PRESENTATION

at 14.00 hrs – DD Auditorium

bldg 31, 3-005

FORGE, an interactive facility for the optimization of CRAY computer programs

by John M. LEVESQUE / Pacific-Sierra Research Corp.

FORGE is a UNIX-based system that is designed to work with a Fortran programmer to optimize important Cray computer applications. It is being implemented on APOLLO and other scientific workstations. Program efficiency on Cray computers requires good compiler analysis as well as user input of important program characteristics that may not be evident to the compiler. FORGE offers all the essential compiler analysis capabilities. In addition it asks the user about those characteristics of the program which allow it to vectorize 'as is' Fortran codes on the Cray.

Friday 1 August

CAS ACCELERATOR SEMINAR

at 14.30 hrs – LEP Auditorium

bldg 30, 7th floor

The control system for the Fermilab accelerators

by D. BOGERT / Fermilab

The five accelerators comprising the Fermilab Tevatron are controlled using a unified control system. Containing over one thousand microprocessors, and twenty identical consoles, rapid parallel access is provided to all data for any console user employing easily modifiable compiled applications programs.

Friday 8 August

DD SEMINAR

at 11.00 hrs – DD Auditorium

bldg 31, 3-005

PLEASE NOTE UNUSUAL DAY AND TIME!

The research parallel processor prototype (RP3)

by S.L. HARVEY / Senior Manager - Prototype Systems, IBM Research, Yorktown Heights, USA

COURS D'ANGLAIS

Un dépliant a été préparé pour donner certaines informations que les éventuels intéressés sont en droit d'attendre avant de demander leur inscription même à titre provisoire.

Ces renseignements sont présentés sous les rubriques suivantes :

1. **Apprentissage d'une langue étrangère**
 - 1.1. "Miracles"
 - 1.2. Les conditions de succès
2. **Les cours d'anglais du CERN**
 - 2.1. Conception des cours du CERN
 - 2.2. Démarche pédagogique
 - 2.3. Le "contrat animateurs-participants"
3. **Structure actuelle des cours du CERN**
 - 3.1. Types de cours : durée, fréquence, horaires, taxes d'inscription, etc.
 - 3.2. Autres possibilités*
4. **Procédure d'inscription provisoire**

Le dépliant contient également les bulletins d'inscription provisoire pour les cours qui débiteront en septembre 1986.

Les détails exacts des dates, horaires, etc. ne sont pas inclus, puisque le choix du cours dépend du niveau et des besoins linguistiques de la personne concernée.

La procédure d'inscription **provisoire** est justement destinée à fournir aux intéressé(s), quel que soit leur niveau actuel l'occasion de se renseigner sur les possibilités de formation les mieux adaptées à leur cas particulier, **sans engagement de leur part.**

Les dépliants sont disponibles en self service au Secrétariat des Cours de Langues, Bât 54 -R013. Les participants aux cours en 1985-1986 ayant exprimé leur désir de se réinscrire en 1986-1987 ne sont pas tenus de remplir un nouveau bulletin d'inscription.

*Tous les membres du personnel ayant des besoins plus spécifiques en matière d'apprentissage linguistique sont invités à les soumettre au Service de l'Enseignement qui en fera l'examen avant de proposer des cours appropriés dépassant le cadre du programme habituel (par exemple : préparation d'un examen externe agréé, cours de communication dans un contexte plus

FRENCH COURSES

A folder has been produced which contains details which prospective students can expect to be given before enrolling even provisionally.

This information is presented under the following headings :

1. **Learning a foreign language**
 - 1.1. "Miracles"
 - 1.2. Conditions of success
2. **French courses at CERN**
 - 2.1. Basic concept
 - 2.2. Teaching approach
 - 2.3. The "contract between teachers and students"
3. **Present structure of CERN courses**
 - 3.1. General courses : duration, frequency time tables, fees, etc.
 - 3.2. Courses designed for particular needs*
4. **Procedure for provisional enrolment**

The folder also contains the provisional application form for the courses due to begin in September, 1986.

The exact details of dates, time-tables, etc. are not included because the choice of course depends on the level and the linguistic needs of the person concerned.

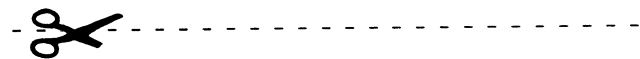
The **provisional** enrolment procedure is indeed intended to provide prospective applicants, whatever their present level, with information about the most suitable course in their particular case, **involving no firm commitment at this stage.**

The folder can be picked up at the Language Courses Secretariat, Building 54, R-013. Participants in the 1985-1986 courses having already expressed their desire to re-enrol in 1986-1987 are not required to complete a new application form.

*All members of personnel with more specific linguistic needs are invited to submit them to the Education and Training Service for further analysis prior to proposing suitable courses, which go beyond the framework of the usual programme (eg. preparation for officially recognized external language examinations, communication skills in a wider context such as public speaking, running or participating in meetings, inter-

large tels que prise de parole en public, conduite de réunions, participation à des réunions, relations interpersonnelles au travail en langue étrangère etc.)

A cet effet le talon ci-dessous doit être retourné au Bureau des Professeurs d'anglais dont l'un prendra ensuite contact avec vous pour fixer un rendez-vous lors duquel vous pourrez discuter de vos besoins spécifiques.



(A retourner au Bureau des Professeurs d'anglais - Bât. 54, R-027)

NOM :

PRENOM :

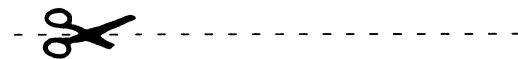
DIV. :

TELEPHONE :

J'ai des besoins très spécifiques en anglais langue étrangère et j'aimerais en discuter avec un professeur.

personal relationships at work in a foreign language etc.)

For this purpose the slip below should be returned to the French teachers' office. You will then be contacted by one of the teachers to make an appointment in order to discuss your specific needs.



(To be returned to the French teachers' office - Building 54, R-031)

NAME :

FIRST NAME:

DIV. :

TELEPHONE :

I have very specific needs in French as a foreign language and should like to discuss them with a teacher.

SUMMER STUDENT LECTURE PROGRAMME

Date	Time	Lecturer	Title
This week			
Wed. 30 July	08.30	--	
	10.00	--	
	11.15	P. Darriulat	The future of particle physics
Thu. 31 July	08.30	--	
	10.00	H. Nicolai	Introduction to strings and superstrings (1)
	11.15	V. Telegdi	Experiments on discrete symmetries (1)
Fri. 1 August	08.30	--	
	10.00	H. Nicolai	Introduction to strings and superstrings (2)
	11.15	S. Cittolin	Data analysis
Next week			
Mon. 4 August	08.30	--	
	10.00	V. Cavassini	Soft hadron-hadron collisions (1)
	11.15	V. Telegdi	Experiments on discrete symmetries (2)
Tue. 5 August	08.30	--	
	10.00	V. Cavassini	Soft hadron-hadron collisions (2)
	11.15	V. Telegdi	Experiments on discrete symmetries (3)
Wed. 6 August	08.30	--	
	10.00	R. Stock	The Search for quark matter
	11.15	V. Telegdi	Experiments on discrete symmetries (4)

All lectures will be held in the Main Auditorium and will be given in English (although questions in French are welcome).

Fellows and Associates Service
Tel. 4471/3