

EUROMECH 267 - DISCRETE MODELS OF FLUID DYNAMICS - Prof. A. S. Alves

REPORT

1. PLACE AND DATE. Figueira da Foz (PORTUGAL), 19-22 September, 1990.
2. NUMBER OF PARTICIPANTS. 55. Coming from 16 countries:
Belgium (1), Canada (1), Germany (3), France (11), Italy (14), Japan (1),
Luxembourg (1), Mexico (1), Poland (2), Portugal (13), South Africa (1),
Spain (1), The Netherlands (2), United Kingdom (1), USA (1), USSR (1).
3. SCIENTIFIC COMMITTEE. A. S. Alves & H. Cabannes (chairmen), N. Bellomo (Torino, Italy), C. Cercignani (Milano, Italy), R. Dilão (Lisbon, P.), G. Doolen (Los Alamos), R. Gatignol (Paris), S. Kawashima (Kyushu, Japan), P. Lallemand (Paris) and U. Sultangazin (Alma-Ata, Kazakh SSR).
4. NEXT MEETING. The afternoon 19 September the Scientific Committee met (with Prof. d'Humieres on behalf of Prof. Lallemand) in order to plan the next meeting on the same subject. We agreed with the offer of Prof. Sultangazin who will organize it in Alma-Ata, on 1992. By geography, it cannot be an euromech. Anyway, this shows the concern of the participants about the subject. Professors Sultangazin and Cabannes will chair this meeting that will be the fourth treating simultaneously the discrete Boltzmann equations and the lattice gases.
5. PROCEEDINGS. The proceedings (edited by myself) will be published by World Sc. Pub. All the contributions have been refereed and I hope that the volume will appear by next May.
6. FINANCIAL ASPECTS. This was a small budget meeting. The organizing committee could afford to pay only the living expenses of some speakers. Also the participation fee was small: US \$40, in order to follow the rules of the EUROMECH COUNCIL. In practical terms the fees covered mainly the social

events. Apart this money the total cost was around US \$5600. The money came mainly through some portuguese scientific institutions.

7. INVITED SPEAKERS. The chairmen (Prof. Cabannes and myself) invited a certain number of scientists in order to give survey talks. We tried to reach an imbalance between nationalities (outside Europe included) and also to invite some younger researchers. I am glad to see that this was very well understood by some other senior researchers who brought their valuable contributions to the colloquium.

8. GENERAL VIEW. It is true that discrete Boltzmann equation and lattice gases are two epistemological different approaches to the gas dynamics and sometimes it is difficult to find bridges between them. By comparison with the two preceding colloquia under the same joint topic some progress were made, in spite of the modest dimension of this one. Also some new interesting discrete models are coming to the light, as models with some kind of external effects (even relativistic models). This could mean that new researchers should be attracted to the field.