

Statistical Mechanics and Thermodynamics Group

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ANNUAL REPORT 2000

Membership

The membership of the Group on 26/08/00 stood at 149.

Committee

The committee until the AGM for 2001 consists of:

Chair	Prof. M.P. Allen (Bristol)
Hon. Secretary	Dr. D.J. Cleaver (Sheffield Hallam)
Hon. Treasurer	Dr. P.D. Olmsted (Leeds)
Ordinary Members:	Dr. P. Bartlett (Bath)
	Prof. J.-P. Hansen (Cambridge)
	Dr. P.G. Higgs (Manchester)
	Dr. J. Jones (Unilever, Port Sunlight)
	Dr. R. Sear (Surrey)
	Dr. R. Wheatley (Nottingham)

Meetings and other activities during 2000

The SMTG held two main meetings during 2000. The first was a two-day conference "Ions in solids and liquids and at interfaces", held at Nottingham on 5th-6th January. This was a workshop-style conference in which the emphasis was the presentation and discussion of new applications. It was also funded by CCP5. Our main meeting was "Complex Fluids 2000", which ran from 11th-13th September at Sheffield Hallam University. This meeting covered both the experimental behaviour and theoretical understanding of complex fluid systems including bio-polymers, liquid crystals, and colloids and was co-organised by the IOP Complex Fluids group, additional funding coming from the EPSRC Soft Matter Network. The Complex Fluids meeting had a satellite half-day workshop from Dr. Jorge Kurchan of the PMMH-ESPCI Paris on "Aging and the nature of the Glass Transition". We held one other workshop this year: "Introduction to charged colloids and polyelectrolytes", led by Prof. Robijn Bruinsma of the University of Leiden. This took place at Imperial College on 24th October. We also supported the 2000 "*Methods in Molecular Simulation Summer School*", which was run at UMIST in June. The principal lecturers were Profs. J.H.R. Clarke (UMIST), M.P Allen (Bristol), and D.J. Tildesley (Unilever) and Dr W. Smith (Daresbury); additional support came from CCP5, the ESF network SIMU and Unilever.

2001 Events and Future plans

Again, the SMTG is to be involved in two big meetings this year. The first, "Thermodynamics 2001: Thermodynamics and Statistical Mechanics with Industrial Applications" is to take place in Bristol from 4th-6th April. We are delighted that Prof. David Chandler of Berkeley will be giving the Lennard-Jones lecture "Hydrophobicity at Small and Large Length Scales: Two Faces of Water" at this meeting. Our second meeting for 2001, "Complex Materials in External Fields", will run in Manchester from 29th-31st August and be preceded by a one-day workshop led by John Brady. The other event for 2001 which we are definitely supporting is the next running of the "*Methods in Molecular Simulation Summer School*", which will run at UMIST from 1st-10th July. Looking further ahead, we note that we have recently been approached by the Theoretical Chemistry Group and are exploring possibilities for joint meetings, probably starting in 2002.

Accounts

The accounts for the year 2000, prepared by the Hon. Treasurer Dr. P.D. Olmsted, have been sent separately

D.J. Cleaver (Sheffield Hallam)
Hon. Sec.