

Announcement

The Abdus Salam International Centre for Theoretical Physics (ICTP) is organizing a "Workshop on Statistical Physics and Capacity–Approaching Codes", to be held from 21 to 25 May 2001, in Trieste, Italy.

This Workshop is being organized because of the increasing recognition that there are important points of contact between the field of "codes on graphs" and their iterative decoding algorithms and some of the models and algorithms of statistical physics, particularly pairwise Markov and Ising models (in the presence of disorder). Some examples of researchers who have already exploited these connections are Sourlas, MacKay–Neal, Kanter–Saad–Kabashima, and Yedidia–Freeman–Weiss. However, the methods of statistical physics are still unfamiliar to many coding theorists, while the particular objectives of coding theory and its increasingly sophisticated methods are not familiar to statistical physicists.

The purpose of this Workshop is to foster an intense dialogue between statistical physicists, coding theorists, and perhaps others in cognate fields such as inference and convex optimization, with the hope of breaking down some of these disciplinary barriers.

The format of the Workshop will include a number of invited and contributed talks, but will also allow plenty of time for informal interactions. An excursion will also be arranged.

Scientists and physicists from all countries that are members of the United Nations, UNESCO or IAEA can attend the Workshop. The main purpose of the Centre is to help research workers from developing countries, within a framework of international cooperation. However, scientists from developed countries are most welcome to attend. Since very limited financial support (especially for travel) is available, those interested in attending should try to secure funding from their own sources. The working language of the Workshop will be English. No registration fee is required to attend this activity.

The deadline for submitting contributions for participation is 31 January 2001. The "Request for Participation" form, to be found at the back of the Bulletin (also obtainable via e-mail: smr1347@ictp.trieste.it, and by typing on the subject line "get announcement" or via the WWW: <http://www.ictp.trieste.it/>) should be completed, signed and mailed to:

**the Abdus Salam ICTP
Workshop on "Statistical Physics"
(Attn.: Rosanna Sain)
Strada Costiera 11, 34014 Trieste, Italy**

Phone: +39 040 2240379 – Fax: +39 040 224163
e-mail: smr1347@ictp.trieste.it
Home page: <http://www.ictp.trieste.it/~web1347>

Trieste, November 2000