Book Review

Proceedings of the International Conference on Statistical Mechanics. Kyoto 1968 (Supplement to Journal of the Physical Society of Japan, Vol. 26, 1969). 312 pp., \$16.

The 1968 Kyoto meeting is the latest of the international biennial meetings sponsored by the IUPAP (International Union of Pure and Applied Physics.) The previous meeting was held in Copenhagen in 1966.

These proceedings give an accurate picture of the areas of current interest and activity in the field of statistical mechanics. About one-third of the 104 papers are devoted to phase transitions and critical phenomena. The remainder is divided among random systems, basic problems, fluids, etc.

One of the distinctive characteristics of a collection of conference papers is the transcription of the questions and remarks of attendees following each presentation. Some of these discussions are intense and indicate the importance or controversial nature of the topic. For example, the discussion of the statistical mechanics of stellar systems following ter Haar's paper points up the fundamental problem of whether or not one should expect a "conventional" approach to equilibrium in stellar systems defined by long-range forces, all of the *same sign*, so that no screening occurs.

The use of information-theoretic constructs to suggest the form of the energylevel spectral-density function for systems and their use in other applications was debated after the papers by Bolian and by Bloch.

There was also discussion of dynamical scaling laws describing relaxation near critical points, particularly of the question of why a number of seemingly different approaches all led to dynamical scaling.

Taken as a whole, the papers form a rich and useful collection.

The proceedings were published in the first half of 1969, not a long delay after the conference of September 1968, and are available as one of the issues of the *Journal* of the Physical Society of Japan. An individual copy is available on sending a check for \$16.00 (U.S.) to:

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