

FOREWORD

Millimeter interferometry has been demonstrated in the last few years as a major tool for studying fine scale structures of molecular line emission and continuum emission in various astronomical objects. With the benefit of high-resolution mapping using the aperture synthesis technique, our knowledge of starforming regions, protostars, protoplanetary systems, late type stars, Galactic center and star formation in galaxies has been greatly improved. Four millimeter arrays (BIMA, OVRO Array, NMA, IRAM Array) are in full operation, while the Smithsonian submillimeter array is now under construction. All the operating arrays are currently being upgraded to improve resolution, sensitivity, mapping speed, and spectral capabilities by adding more antennas, receivers for shorter wavelengths, and correlators for wider bandwidths.

This conference was the first international meeting devoted to millimeter and submillimeter wave interferometry. The scope of the meeting was focused on the technical aspects, the status of the operating arrays, and the future plans and scientific directions of millimeter and submillimeter wave interferometry.

The conference was held in Sengokubara, Hakone, Japan, from 5 to 9 October 1992, under the sponsorship of IAU Commission 40 (Radio Astronomy) and URSI Commission J. Besides the IAU and URSI supports, additional financial support was provided by 1) Ministry of Education, Science and Culture, Japan, 2) Japan Society for the Promotion of Science, 3) International Communications Foundation, 4) Mitsubishi Electric Co., 5) Fujitsu Ltd., 6) Nihon Tsusinko, Co., Ltd. This meeting was hosted by Nobeyama Radio Observatory, National Astronomical Observatory. There were 160 registered participants from 14 countries.

The Scientific Organizing Committee consisted of R. Booth, R.L. Brown, R.D. Ekers, R. Genzel, S. Guilloteau, R. Hills, P.T.P. Ho, M. Ishiguro (Co-chair), Y. Parijskij, N. Scoville, and W.J. Welch (Co-chair). The Local Organizing Committee consisted of Y. Chikada, T. Hasegawa, J. Inatani, M. Inoue, M. Ishiguro, R. Kawabe, M. Morimoto (Chair), K.-I. Morita, and H. Tabara. The scientific program was divided into sessions on RECENT DEVELOPMENTS AND UPGRADING PLANS FOR THE NEAR FUTURE, TECHNICAL INNOVATIONS, ASTRONOMICAL RESULTS AND PROSPECTS, and PLANS FOR THE FUTURE. The sessions consisted of 25 invited reviews, 20 contributed talks and 100 poster papers. There were hot discussions on the very recent results on the disk around a T Tauri star and the protogalaxy IRAS F10214+4724. The meeting was briefly summarized at the end of the meeting by Jack Welch.

The participants enjoyed the Japanese traditional music and dancing, and the bus tour from Hakone to the Nobeyama Radio Observatory via the skirts of Mt. Fuji.

Finally, We wish to thank Eiko Hatakeyama and Chizuko Yoda for their help in preparing the manuscript.

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