

Preface

One of the most important advances in galaxy research the past 15 years has been the realization that a bar is an important engine for the evolution of structure in a disk galaxy. A bar can be a major perturbation in the gravitational potential of a galaxy, leading to large-scale radial flows, shocks, and circumnuclear starbursts. Many morphological features of galaxies, such as rings, global density waves, secondary bars, lenses, and characteristic dust lanes, are thought to be directly connected to the presence of a bar. Even more important has been the implication that bars may be intimately connected to the fueling of nuclear activity in galaxies and to observed infrared excesses. This has brought barred galaxies from the dynamical curiosities they represented in the late 1970's to a major topic of research in the 1990's. Since more than 50% of all disk galaxies appear to have a bar in some form, either as a standard SB-type bar, an oval distortion, or a secondary bar, barred galaxies may very well contain the clues we need to understand how galaxies form and evolve.

This volume contains the papers presented at the first IAU-sponsored meeting ever devoted specifically to the problems of barred galaxies. The meeting took place from May 30 - June 3, 1995 in the Bryant Conference Center of the University of Alabama, in the city of Tuscaloosa, Alabama, U. S. A. The meeting was attended by 118 persons from 20 countries. There were ten oral sessions spread over five meeting days, and a total of 61 poster presentations. The meeting began with two days of observational discussions, followed by two days of theory and modeling discussions. On the final day, the meeting came close to home, when theorists and observers discussed the evidence for a bar in our own Milky Way Galaxy.

The success of the conference hinged on the efforts of many people. The Scientific Organizing Committee consisted of E. Athanassoula (Marseille Observatory), F. Combes (Paris Observatory), G. de Vaucouleurs (University of Texas at Austin), B. Elmegreen (IBM Watson Research Center), D. Elmegreen (Vassar College), J. Kormendy (University of Hawaii), D. Pfenniger (Geneva Observatory), H. Salo (University of Oulu), J. Turner (University of California at Los Angeles), A. Zasov (Sternberg Astronomical Institute), and R. Buta (University of Alabama and SOC Chairman). We are grateful to J. Sellwood (Rutgers University) for additional useful comments and suggestions for the program.

The Local Organizing Committee was chaired by G. Byrd and included D. Crocker, S. Ryder, and R. Buta. We are grateful to S. Ryder, now at the University of New South Wales, for expertly preparing the abstract booklet for the meeting. Shuttle and session assistance was provided by University of Alabama graduate students Victor Andersen, Renato Dupke, Susan Gessner, Brian Irby, Lauren Jones, Robert Mohr, Guy Purcell, Carlos Rabaça, James Scott, Hemant Shukla, Wentao Wu, and visiting UNAM student Hector Toledo. We thank these students for their needed help. The finances of the meeting were expertly handled by Amy Aitken, and additional secretarial advice was provided by Jane Boyd and Linda Acker. Dr. S. Jones, assistant dean for the College of Arts and Sciences, provided the meeting welcome.

We thank the staff of the Bryant Conference Center, in particular Carol Crump, for their assistance in the preparation for the meeting and for the smoothness of the operation during the meeting. We are also grateful to Danny

Whitcomb and Lloyd Junkin for hardwiring the poster room so that two terminals with links to the outside world could be made available to meeting participants.

The meeting was made possible due to funding from the International Astronomical Union, the U. S. National Science Foundation EPSCoR program, and the Alabama Space Grant Consortium. We thank these organizations for their support. We are particularly grateful for the expert advice and assistance of Dr. Johannes Andersen, Assistant General Secretary of the IAU.

Finally, this volume has been dedicated to the memory of Professor Gérard de Vaucouleurs, who passed away on October 7, 1995 after a long illness. Professor de Vaucouleurs had a life-long commitment to astronomy and made important contributions to many subfields of extragalactic astronomy, including barred galaxies. He will be greatly missed by all who work on the many topics discussed in this book.

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Editors
31 December 1995