

**CHEMICAL and DYNAMICAL
EVOLUTION
of Our
GALAXY**

EDITED BY :

E.BASINSKA-GRZESIK and M.MAYOR

IAU Colloquium No 45

CHEMICAL AND DYNAMICAL EVOLUTION
OF OUR GALAXY

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FOREWORD

The IAU Colloquium No 45 on "Chemical and Dynamical Evolution of our Galaxy" took place from the 7th to the 9th of September, 1977 in Torun (Poland). It was organized, under the auspices of Commission 33, by a Local Organizing Committee, presided by Dr. A. Woszczyk. The Scientific Organizing Committee consisted of J. Audouze, J. Einasto, W. Iwanowska, R.B. Larson, L. Martinet (chairman), M. Mayor, J. Ostriker, B. Pagel, R.J. Talbot and B. Tinsley. The Colloquium brought together about 80 astronomers and astrophysicists from various countries.

Until recently, work on the chemical evolution of our Galaxy was done independently of the work on the dynamical behaviour of gas and stars. In developing the program we insisted upon the necessity of establishing a connection between both approaches. The aim of this Colloquium was not necessarily to give a complete and detailed picture of the galactic evolution but to define some directions in which elaborate and intensive work should be pursued in the future. The meeting was particularly successful in the section devoted to the central parts of the Galaxy. However, due to the shortness of the Colloquium and the absence of some reviewers initially proposed, some important questions (for example dynamics in the halo, early phases of galactic evolution) could not be discussed. The scope of the Colloquium covered both observational and theoretical aspects concerning the formation and the chemical evolution of galaxies in general, the chemical properties of stars in the halo and in the disc of our Galaxy, the dynamical history of stars in the disc, and the chemical and dynamical evolution of the central parts.

The present volume contains the written versions of the talks presented in Torun. We are indebted to the authors of the papers for their contributions and all the work they put into the presentation of the material. The publication of this book would not have been possible without the skilled assistance of Mrs Marie-Louise Proust and we express to her our gratitude. Finally, we owe special thanks to the Local Organizing Committee and its chairman, Dr. Woszczyk, for his invaluable help and his warm and generous welcome in his nice town.

November, 1977

L. Martinet

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