

Preface

The mathematical contribution of Manfredo P. do Carmo has had a lasting impact on several topics of Differential Geometry and especially on minimal and constant mean curvature submanifolds. This volume contains a selection of do Carmo's papers in chronological order. It includes papers with important results in the following areas: relations between topology and curvature of Riemannian manifolds, convexity and rigidity of isometric immersions, minimal submanifolds, in particular, minimal surfaces, conformal immersions, hypersurfaces of constant mean curvature and constant r -mean curvatures and Hopf-type theorems. The volume starts with his commentaries on his scientific life and on the mathematical contribution of the selected papers. The complete lists of his publications, up to 2010, and of his 27 D.Sc. students are included at the end of this volume. The list of publications extends to more than 80 research articles, with a total of 31 co-authors, and several books.

Those of us who were his students remember his enthusiasm in his lectures on Differential Geometry courses. They were stimulating to students and they originated the first versions of his books. Although, obviously not reproduced in this volume, some of do Carmo's books have become classics. The book *Differential Geometry of Curves and Surfaces* has become a textbook for students all over the world, with translations into Spanish, German, Chinese and Portuguese, and it has helped train several generations of geometers, since it was first published in 1976.

His dedication to his students and to the development of Geometry was of fundamental importance for the expansion of research on Differential Geometry in Brazil. An account of the evolution of this expansion can be found in one of his papers in this volume.

Manfredo P. do Carmo continues contributing to Geometry, with enthusiasm. I am privileged to have been his first student, having been introduced to Differential Geometry through his lectures.

Brasília

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Manfredo P. do Carmo - Selected Papers

do Carmo, M. - Tenenblat, K. (Ed.)

2012, XIII, 497 p., Hardcover

ISBN: 978-3-642-25587-8