

FOLIATIONS

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Introduction. The study of foliations on manifolds has a long history in mathematics, even though it did not emerge as a distinct field until the appearance in the 1940's of the work of Ehresmann and Reeb. Since that time, the subject has enjoyed a rapid development, and, at the moment, it is the focus of a great deal of research activity.

The purpose of this article is to provide an introduction to the subject and present a picture of the field as it is currently evolving.

The treatment will by no means be exhaustive. My original objective was merely to summarize some recent developments in the specialized study of codimension-one foliations on compact manifolds. However, somewhere in the writing I succumbed to the temptation to continue on to interesting, related topics. The end product is essentially a general survey of new results in the field with, of course, the customary bias for areas of personal interest to the author.

Since such articles are not written for the specialist, I have spent some time in introducing and motivating the subject. However, this article need not be read linearly. §§ 1, 2, 3 and 5 fall into the category of "basic material." §§ 4, 8 and the combination 6-7 are essentially independent of each other.

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