

MA2824 Differential Geometry

Professor: Julien Duval

Language of instruction: French – **Number of hours:** 36 – **ECTS:** 3

Prerequisites: Advanced course in differential calculus

Period: S8 Elective 09 February to March IN28IE2, SEP8IE2

Course Objectives

This course is part of the Differential Geometry course of the MSc of Fundamental Mathematics of University Paris XI. To learn how to deal with manifolds

On completion of the course, students should be able to

Manifolds, vector fields, degree

Course Contents

- ✧ immersions,
- ✧ submersions,
- ✧ diffeomorphisms,
- ✧ submanifolds,
- ✧ manifolds,
- ✧ Sard theorem,
- ✧ degree and applications

Course Organization

Lectures: 21 hr, Tutorials: 12 hr, Exam: 3 hr

All courses will take place at Orsay.

Teaching Material and Textbooks

J. Milnor, topology from the differential viewpoint.

Evaluation

3-hr written final exam, without documents