Differential and Riemannian Geometry

Prof. Francesco Bottacin[1]

[1] *Università degli Studi di Padova*
Dipartimento di Matematica
Email: bottacin@math.unipd.it

Timetable: 16 hrs. First lecture on March 21, 2014, 14:00 (dates already fixed, see the calendar), Torre Archimede, Room 2BC/30.

Course requirements: basic notions of Topology and Real Analysis

Examination and grading: Oral examination.

SSD:MAT/03.

Aim: The course will provide an introduction to the basic notions and results of differential and Riemannian geometry.

Course contents: Manifolds, vector bundles, tensor bundles, differential forms, de Rham cohomology, integration on manifolds. Distributions, Lie derivative, flows. Connections on vector bundles, curvature. (Pseudo)Riemannian metrics on manifolds.