## **ICTP DIPLOMA PROGRAMME IN MATHEMATICS 2015-16**

## **Differential Geometry**

C. Arezzo (10 lectures : 15 hrs)

1) Definition and comments

2) Examples and vector bundles

3) Tensors

- 4) Covariant derivative
- 5) Levi-Civita Connection

6) Length and Energy of curves on a Riemannian manifold, Geodesics