

Dear Riemannian Geometry students  
Short information related with strike.

We missed two lectures yesterday and today. I put on the web the material of these “virtual lectures” I tried to minimise the new material in these lectures.

During these two lectures I planned to finish the subsection 1.4.4. devoted to locally Euclidean Riemannian manifolds, and to begin and finish the subsection 1.5 which is devoted to calculating of volume (area in 2-dimensional case) of domains in Riemannian manifolds (see the lecture notes and homework 4)

When we will meet I plan to make a review of this lecture, and during tutorials and lectures to consider the important examples of calculations. Just now I would like to focus your attention on the exercise 1-st in Homework. I put it in purpose to show how comes that square root of determinant of Riemannian metric, the expression  $\sqrt{\det g} dx dy$  is responsible for calculating volume (area).

Finally I would like to tell you that I realise well that you are not happy with these circumstances. I am not happy also. Hope (VERY MUCH!) that we can soon to return to normal life.

Yours sincerely

Hovhannes Khudaverdian  
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