

## REPORT

on doctoral thesis "Differentiability of continuous convex functions"  
by Tomáš Konderla

The doctoral thesis, by Tomáš Konderla, is related to one of the most classical and always actual subject — to basic structures of analysis. In this connection it is reasonable to remind the saying of Dieudonne, the founder of the Bourbaki group, that the hundreds of years were unable to make the analysis less sharp. Of course now the name analysis means not only what was interesting in times of Newton and Euler — but at first place this name means now the infinite dimensional analysis.

In the Thesis the author investigate relations between different definitions of differentiability of convex functions. As it is now well known the huge collections of different definitions of differentiability has a simple structure. The main contribution in this clarification has been made in a couple of common papers of the superwiser of Konderla and myself. But then one considered the class of all functions but in the Thesis only the convex functions.

My impression about the Thesis is very positive. Actually it is the first sufficiently comprehensive investigation of differentiable properties of convex functions on infinite-dimensional topological vector spaces.

Of course the author, Tomáš Konderla, on the basis of the Thesis, can be honored by the degree of Doctor Philosophy in Mathematics.

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