Compliments to Bad Spaces

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Abstract

The ways that mathematical theories get into the core of mainstream mathematical curriculum sometimes are strongly influenced by accidental circumstances. Often basic definitions could be made more convenient than the present ones. In the talk we will consider a few examples. Speaking on differential manifolds, we usually pretend that they have no singular siblings. This causes lots of inconveniences. Another example: most mathematicians (besides, probably, specialists in combinatorics) believe that all finite topological spaces are either trivial or nasty. Topology appears to be the only mathematical field that feels ashamed of its finite objects.

This talk should be accessible to graduate students.