Eva Horvat: Nonsmooth manifold decompositions

Manifolds have often been studied by analytic methods involving Morse functions. By considering a wider and more irregular class of functions, one might gain new insight into the structure of the manifold under scrutiny. We introduce continuous selections of smooth functions, which generically provide a stratification of their domain. We show some examples of stratifications for low dimensional manifolds and discuss possibilities for further investigation.

References

[1] E. Horvat, *Nonsmooth manifold decompositions*, Journal of Geometry and Physics **194**, 105020, 2023.