Analogue of Whitney trick for eliminating multiple intersections

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The Whitney trick for cancelling *double* intersections is one of the main tools in the topology of manifolds. Generalization of the Whitney trick to *multiple* intersections was 'in the air' since 1960s. However, only in this century they were stated, proved and applied to obtain interesting results. I shall describe the ground-breaking work [MW15] (see also the survey [Sk16]) and its generalizations to *codimension 2* [AMS+] and to the case when *general position multiple intersections have positive dimension* [MW16, Sk17].

These were most difficult steps in recent counterexamples to the topological Tverberg conjecture (for which papers by M. Özaydin, M. Gromov, P. Blagojević, F. Frick, G. Ziegler, I. Mabillard and U. Wagner are important, see the survey [Sk16]) and in stronger counterexamples [AMS+, AKS].

References

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