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# Combinatorial patchworking in higher codimension

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## Résumé

Combinatorial patchworking is a powerful method used for constructing real algebraic hypersurfaces with controlled topology. I will discuss generalization of this method to higher codimension.

In codimension 2, we give explicit patchworking rules (based on triangulations, sign distributions, and edge orientations) similar to Viro's original formulation for hypersurface.

As an application, we obtain families of maximal T-curves in real projective 3-space. For higher codimension, we derive new bounds on Betti numbers and prove non-existence of maximal T-curves (for codimension  $> 3$ ) and of high-codimension T-surfaces.

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