



Contribution ID: 22

Type: **not specified**

### Tverberg's theorem for cell complexes

*Wednesday, 17 September 2025 09:30 (1 hour)*

Tverberg's theorem states that given any  $(d+1)(r-1)+1$  points in the  $d$ -dimensional Euclidean space, there are pairwise  $r$  subsets whose convex hulls have a point in common. This can be restated in terms of an affine map from a  $(d+1)(r-1)$ -simplex to the  $d$ -dimensional Euclidean space, and the topological Tverberg's theorem generalizes it to a continuous map. I will further generalize it to a continuous map out of a certain CW complex, e.g. a simplicial  $((d+1)(r-1)-1)$ -sphere. This is joint work with Sho Hasui, Masahiro Takeda, and Mitsunobu Tsutaya.

**Primary author:** Prof. KISHIMOTO, Daisuke (Kyushu University)

**Presenter:** Prof. KISHIMOTO, Daisuke (Kyushu University)