

## Combinatorial negative curvature

Damian Osajda

Problem list 7

- (1) Find a finite simplicial  $L$  complex with the following property: There is no simplicial complex whose all vertex links are isomorphic to  $L$ .
- (2) Let  $X, Y$  be cubical complexes. Show that links in  $X \times Y$  are of the form  $X' * Y'$ , where  $X'$  is a link in  $X$ , and  $Y'$  is a link in  $Y$ .
- (3) Show that  $P_{L * K} = P_L \times P_K$ .