Geometric realization of convex polyhedra and polyhedral complexes

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Abstract

Given a polyhedral complex embeddable in $\mathbb{R}^3$, is it always possible to realize it geometrically? If yes, can one always make coordinates integer? If yes, how large integers does one need? I will survey what is known on all 3 questions, present our recent results in all three directions, and state few conjectures. Joint work with Stedman Wilson.