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Higher Categorical Perspectives on Homotopy Groups of Spheres

One of the loveliest mathematical descriptions I've heard is "the homotopy groups of spheres sort of sound like a lot of people screaming." This, of course, prompts the question: what's causing all that screaming? This talk will take the viewpoint that the homotopy groups of spheres arise as shadows of coherence axioms in weak higher groupoids. We will illustrate this with some low-dimensional examples and general theorems, and then sketch some future goals.