Matrix problems, triangulated categories and stable homotopy types

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The talk is a survey of some results on classifications of stable homotopy types of polyhedra (finite CW-complexes). We present technical tools for calculations in triangulates categories, which are related to *marix problems*, namely, to *bimodule categories*. Applying this technique to the stable homotopy category [1] we obtain a complete classification of stable homotopy types of polyhedra having cells at most in 4 successive dimensions and of torsion free polyhedra having cells at most in 7 successive dimensions. For details, see [2, 3]. These results were mainly obtained in collaboration with H.-J. Baues.

References

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