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The derived category of coherent sheaves on a toric surface
(joint work with L. Hille)

It was a long standing conjecture that the derived category of coherent sheaves on a toric variety is generated by line bundles. It turns out that there is a counter example even in dimension two. In this talk we classify all surfaces admitting such a generator of the derived category and also classify all surfaces admitting a helix of line bundles. Moreover, we prove further results on the endomorphism algebra of the direct sum of these bundles