On a rational analogue of a conjecture of Singer

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For a closed manifold M with contractible universal cover, the Singer conjecture predicts that the L^2-Betti numbers of M are concentrated in the middle dimension. In this talk I will discuss what is known and unknown about this conjecture, and describe a construction of closed manifolds with rationally acyclic universal covers whose L^2-Betti numbers are not concentrated in the middle dimension.