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Derived traces of Soergel categories.

We study two kinds of categorical traces of (monoidal) dg categories, with particular interest in categories of Soergel bimodules. First, we explicitly compute the usual Hochschild homology, or derived vertical trace, of the category of Soergel bimodules in arbitrary types. Secondly, we introduce the notion of derived horizontal trace of a monoidal dg category and compute the derived horizontal trace of Soergel bimodules in type A. As an application we obtain a derived annular Khovanov-Rozansky link invariant with an action of full twist insertion, and thus a categorification of the HOMFLY-PT skein module of the solid torus. (Received August 18, 2020)