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*Fractional Dehn twists and left-orders on mapping class groups*

Three-manifolds admit descriptions called open book decompositions; in this setting a surface with boundary and a mapping class describe the 3-manifold. One invariant of an open book is the fractional Dehn twist coefficient (FDTC). The FDTC is a real number invariant of a mapping class of a surface with boundary, which has connections to contact topology and foliation theory. I'll show that the FDTC of a given surface can be computed using a multitude of geometrically defined left-orders on the mapping class group due to Thurston. This is joint work with Diana Hubbard.