Cut and paste invariants of manifolds and cobordism

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Cut and paste or SK groups of manifolds are formed by quotienting all manifolds by the relation that two manifolds are equivalent if I can cut one up into pieces and glue these back together to get the other manifold. Cobordism cut and paste groups are formed by moreover quotienting by the equivalence relation of cobordism. We categorify these classical groups to spectra and lift two canonical homomorphisms to maps of spectra.

(joint work with Mona Merling, Laura Murray, Carmen Rovi and Julia Semikina.)

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