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The link concordance invariant from Lee homology

John Pardon

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We use the knot homology of Khovanov and Lee to construct link concordance invariants generalizing the Rasmussen s -invariant of knots. The relevant invariant for a link is a filtration on a vector space of dimension $2^{|L|}$. The basic properties of the s -invariant all extend to the case of links; in particular, any orientable cobordism Σ between links induces a map between their corresponding vector spaces which is filtered of degree $\chi(\Sigma)$. A corollary of this construction is that any component preserving orientable cobordism from a K -thin link to a link split into k components must have genus at least $\lfloor \frac{k}{2} \rfloor$. In particular, no quasi-alternating link is concordant to a split link.

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