

The Bollobas Riordan Extension of the Tutte Polynomial

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I will give an exposition with examples and computations of the Bollobas Riordan extension of the Tutte polynomial to graphs with a fixed embedding in the plane or a surface specified by a cyclic order on the edges. Like the Tutte polynomial, it has both sub-graph and spanning tree expansion. The basic properties will be applied to obtain invariants of knots and links in topology.

The talk will be very expository with lots of examples, some of which will be in electronic format.