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*Duality of Relations*. Preliminary report.

I am going to extend Stone duality from maps to relations. Relations are modelled as spans modulo an equivalence relations. Thus, a relation is a subobject of a product, hence its dual is a quotient of coproduct and thus cannot, on the face of it, be expected to equivalently be a subobject of a product. We are going to show that this problem can be solved by working in order enriched categories. Based on joint work with Drew Moshier and Achim Jung. (Received August 27, 2019)