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Monoid-valued Sewing Lemmata and applications

I will present a generalisation of the multiplicative Sewing Lemma by Feyel, De La Pradelle and Mokobodzki '08, and explain how it relates to the existing variants in the literature, notably in the context of semi-groups (Gubinelli Tindel '10) or stochastic sewing (Lê '20). I will give a few examples that illustrate a concept of submultiplicative monoid, which is a natural framework in which this theorem can be used.

This is partly based on a joint work with A. GERASIMOVICS and T. NILSSEN.