

# Some completions

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Some completions arise from other completions, in other categories. For instance, the bicompletion of the quasi-uniform spaces arises from the uniform space completion by lifting against the symmetrizing bicoreflector. Existence of the quasi-uniform bicompletion as epireflection is guaranteed by elementary categorical arguments ([1], Lemmas 1.1, 1.2), but proof of its firmness in the sense of [2] requires actual Bourbaki-style work. Firmness is the crucial attribute that we desire in a completion. We discuss whether it can be established by a categorical proof in the above and similar cases.

## REFERENCES

- [1] G. C. L. Brümmer, *Two procedures in bitopology*, in: Categorical Topology (Conf. Berlin 1978), Lecture Notes in Math. 719 (1979) 35–43.
- [2] G. C. L. Brümmer and E. Giuli, *A categorical concept of completion of objects*, Comment. Math. Univ. Carolinae 33 (1992) 131–147.

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\*Joint work with H.-P. A. Künzi (University of Cape Town). Assistance through an NRF grant to the second author is acknowledged by both authors.