Matthews, S. G.

Partial metric topology. (English) Zbl 0911.54025

Andima, Susan (ed.) et al., Papers on general topology and applications. Papers from the 8th summer conference at Queens College, New York, NY, USA, June 18–20, 1992. New York, NY: The New York Academy of Sciences. Ann. N. Y. Acad. Sci. 728, 183-197 (1994).

Summary: Metric spaces are inevitably Hausdorff and so cannot, for example, be used to study non-Hausdorff topologies such as those required in the Tarskian approach to programming language semantics. This paper presents a symmetric generalized metric for such topologies, an approach which sheds new light on how metric tools such as Banach's theorem can be extended to non-Hausdorff topologies.

For the entire collection see [Zbl 0903.00047].

MSC:

54E35	Metric spaces, metrizability
54H25	Fixed-point and coincidence theorems (topological aspects)
47H10	Fixed-point theorems
68Q55	Semantics in the theory of computing
68Q60	Specification and verification (program logics, model checking, etc.)

Keywords:

quasi-metric; symmetric generalized metric

Full Text: DOI