The theory of topos-theoretic 'bridges', five years later

Olivia Caramello

University Paris 7

The methodology of topos-theoretic 'bridges' was introduced in [1]. This technique allows to effectively use Grothendieck toposes as unifying spaces for transferring notions, properties and results across different mathematical theories having an equivalent or a strictly related semantic content. Throughout the past five years this theory has generated many applications in different mathematical areas, such as model theory, proof theory, algebra, topology, functional analysis and algebraic geometry. We shall review the basics of the theory and make a survey of the most significant applications obtained so far.

References

1. O. Caramello, The unification of Mathematics via Topos Theory, *arXiv:math.CT/1006.3930v1* (2010).