NEOLOGICISM: FOR REAL(S)?

Rafał Urbaniak University of Gdańsk University of Ghent Trinity College of Dublin

Neologicism to be successful should provide foundations not only for natural number arithmetic, but also for other mathematical theories, like real number theory (RNT). The search for appropriate abstraction principles is tricky. They should be strong enough to give the desired theory, not strong enough to prove undesired claims and (last but not least) provide basis for a philosophically acceptable story about RNT. I will survey existing attempts of developing neologicist foundations of RNT, evaluate them and try to improve on them.