

Raising to powers on the unit circle

Vincenzo Mantova

In the last years, progress has been made towards understanding reducts of exponential fields, namely real and complex fields together with irrational power functions. As shown by Bays, Kirby and Wilkie, the corresponding statement of Schanuel's Conjecture becomes a theorem for sufficiently generic powers. I will present the special case of imaginary powers restricted to the unit circle, where the techniques of Hrushovski amalgamation yield a natural axiomatisation and the near-model-completeness of the theory, again for sufficiently generic powers. This is joint work with Boris Zilber.