BRIAN HARBOURNE, University of Nebraska-Lincoln
Survey of recent work on resurgences and the containment problem

As of February, 2013, it is known that the square of an ideal of points in the projective plane need not contain the symbolic cube of the ideal. New examples have recently been found (arXiv:1407.2966: Bauer, Di Rocco, Harbourne, Huizenga, Lundman, Pokora, Szemberg), but still all known examples are related to the singular points of configurations of lines. I will summarize what is known and what is not known and discuss recent work on computing resurgences of these ideals (see arXiv:1404.4957: Dumnicki, Harbourne, Nagel, Seceleanu, Szemberg, Tutaj-Gasińska; also see arXiv:1410.0312: Seceleanu).