On the Igusa zeta function of some hybrid polynomials
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Abstract

Hybrid polynomials were introduced by Herwig Hauser in connection with the problem of extending Hinoraka’s resolution of singularities theorem to fields of positive characteristic. In this work we study the local zeta function associated to some hybrid polynomials defined over a non-archimedean local field of positive characteristic, by using essentially the $\pi$–adic stationary phase formula. We show the rationality of these local zeta functions and we describe completely its poles. Joint work with Edwin Leon Cardenal and Dirk Segers.