The condition of linear barycentric rational interpolation from equispaced samples

Efficient linear and infinitely smooth approximation of functions from equispaced samples is an important problem in practice. In 2007, Floater and Hormann have introduced a family of linear barycentric rational interpolants which extend a construction by Berrut from 1988. These interpolants yield high theoretical rates of convergence, which depend on the smoothness of the approximated function. We will present the condition of these rational interpolants and of an extension.