Hermite-Padé Approximants for Angelesco Systems

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I will discuss asymptotics of type II Hermite-Padé approximants (a vector of rational functions with a common denominator) for a vector of Cauchy transforms of analytic densities along any ray of multi-indices. It is assumed that the densities are supported on mutually disjoint intervals (an Angelesco system with complex weights). The formulae of strong asymptotics will be presented, the relevant Riemann surfaces discussed as well as some details of the local Riemann-Hilbert analysis.