Direct and inverse results on the convergence of row sequences of Hermite-Padé approximation

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We give a Montessus de Ballore type theorem for row sequences of Hermite-Padé approximations of vector valued analytic functions which refines some results due to P.R. Graves-Morris and E.B. Saff. We also consider the inverse problem in which the location and order of the poles of a vector analytic function is deduced from the asymptotic beha vior of the sequence of poles of the approximating vector rational functions.