MULTIVARIATE PADÉ-APPROXIMANTS:
THEORY AND APPLICATION

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During the last few years many attempts have been
made to generalize the notion of Padé-approximant to
the multivariate case: one can make different choices
for the polynomials and for the interpolation set.
By means of the multivariate Padé-approximants
introduced in [1], one can acceterate the convergence
of a table with multiple entries. The computations are
performed via the ε-algorithm, as in the univariate
case. We have calculated some multidimensional integrals
with this procedure [2].

[1] Cuyt, Annie A.M.: Multivariate Padé-Approximants.
    to appear in Journ. Math. Anal. Applcs.
[2] Cuyt, Annie A.M.: Acceterating the convergence of
    a table with multiple entry.
    submitted in Numerische Mathematik.