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Review text:

The key idea of the paper is due to Lytvyn and Rvachov (ref. [3] from 1973) who proposed a replacement of a (truncated) Taylor series by (truncated) Taylor expansions generated at several points and matched. Their key trick was a decomposition of a unit in a finite sum of certain non-negative and smooth functions $h_m(x)$ which naturally extends to a similar k -term decomposition of the whole class of functions of a single real variable. The present authors make a specific “point-smearing” decomposition choice of $h_m(x)$ (with $k = 2$ for simplicity) and suggest and describe an application of the trick to the standard (truncated) continued-fraction approximants. I liked the interesting formulae for “reminders” (read: remainders) in the main Theorems 5 and 6.