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ON MULTIPLICATIVE INVERSION FOR WOLFF–DENJOY SERIES

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Let a function f with real poles that form a monotone bounded sequence be expanded in a Wolff–Denjoy series with positive coefficients. The main result of the paper states that, if we subtract the “linear part” from the function $1/f$, then the remaining “fractional part” is also expanded in a Wolff–Denjoy series (its poles are also real and the coefficients of the series are negative). An application of the result to operator theory is given.

Keywords: Wolff–Denjoy series, closed operator, left inverse operator, functional calculus.

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