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Sammanfattning

The Mellin transform is a close relative of the integral transforms of Laplace and Fourier. A major use of Mellin transforms is in asymptotic analysis. The paper starts with basic and fundamental properties of the Mellin transform. Then there is a discussion about the fundamental correspondence between asymptotic expansion of an original function and the singular expansion of its transform. The main application in this this paper is to use this fundamental correspondence to find the pole of the Riemann zeta function.