

Guillera, Jesús; Zudilin, Wadim**Ramanujan-type formulae for $1/\pi$: the art of translation.** (English) [Zbl 1371.11162](#)

Berndt, Bruce C. (ed.) et al., The legacy of Srinivasa Ramanujan. Proceedings of the international conference in celebration of the 125th anniversary of Ramanujan's birth, University of Delhi, Delhi, India, December 17–22, 2012. Mysore: Ramanujan Mathematical Society (ISBN 978-93-80416-13-7/hbk). Ramanujan Mathematical Society Lecture Notes Series 20, 181-195 (2013).

Summary: We outline an elementary method for proving numerical hypergeometric identities, in particular, Ramanujan-type identities for $1/\pi$. The principal idea is using algebraic transformations of arithmetic hypergeometric series to translate non-singular points into singular ones, where the required constants can be computed using asymptotic analysis.

For the entire collection see [\[Zbl 1300.11002\]](#).

MSC:

- [11Y60](#) Evaluation of number-theoretic constants
- [33C20](#) Generalized hypergeometric series, ${}_pF_q$
- [11F11](#) Holomorphic modular forms of integral weight
- [65B10](#) Numerical summation of series

[Cited in 6 Documents](#)**Keywords:**

[Ramanujan-type identities for \$1/\pi\$](#) ; [hypergeometric series](#); [arithmetic hypergeometric series](#); [algebraic transformations](#); [asymptotics](#)

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