$\zeta(3)$ results

The following results are Polynomial Continued Fractions of $\zeta(3)$. For the results marked as "new and unproven", we have not found any formal proof yet.

Novelty	**Formula**	**Polynomials**	**Convergence** $\left[\frac{digits}{term}\right]$
known	$\frac{1}{\zeta(3)} = 0^3 + 1^3 - \frac{1^6}{1^3+2^3-\frac{2^2}{2^3+3^3-\frac{3^6}{3^3+4^3-\dots}}}$	$a_n = n^3 + (n+1)^3,\ b_n = -n^6$	polynomial
known	$\frac{5}{2\zeta(3)} = 2 + \frac{2\cdot1^5\cdot1}{2+1\cdot3\cdot7+\frac{2\cdot2^5\cdot3}{2+1\cdot4\cdot10+\frac{2\cdot3^5\cdot5}{2+1\cdot5\cdot13+\dots}}}$	$a_n = 2 + n(2+n)(4+3n),\ b_n = 4n^6 - 2n^5$	0.60342
known	$\frac{6}{\zeta(3)} = 5 - \frac{1}{117-\frac{64}{535-\frac{729}{1463-\frac{4096}{\ddots}}}}$	$a_n = (2n+1)(17n(n+1)+5),\ b_n = -n^6$	3.0316
new and unproven	$\frac{8}{7\zeta(3)} = 1\cdot1 - \frac{1^6}{3\cdot7-\frac{2^6}{5\cdot19-\frac{3^6}{7\cdot37-\frac{4^6}{\ddots}}}}$	$a_n = (2n+1)(3n(n+1)+1),\ b_n = -n^6$	1.5158
new and unproven	$\frac{12}{7\zeta(3)} = 1\cdot2 - \frac{16\cdot1^6}{3\cdot12-\frac{16\cdot2^6}{5\cdot32-\frac{16\cdot3^6}{7\cdot62-\frac{16\cdot4^6}{\ddots}}}}$	$a_n = (2n+1)(5n(n+1)+2),\ b_n = -16n^6$	0.59602