Results using mixed orders of ζ. July, 2022

The following results are Polynomial Continued Fractions that include different orders of ζ function. For the results marked as "new and unproven", we have not found any formal proof yet

Novelty	Formula	Polynomials
New and unproven	$-\frac{1}{\zeta(4)+4\zeta(2)-8} = 3 - \frac{1^8}{27-\frac{2^8}{123-\frac{3^8}{387-\ldots}}}$	$a_n = n^4 + (n+1)^4 + 2(n^2 + (n+1)^2)$ $b_n = -n^8$
New and unproven	$\frac{2}{2\zeta(5)+6\zeta(3)-9} = 7 - \frac{1^8}{87-\frac{2^8}{485-\frac{3^8}{1813-\ldots}}}$	$a_n = n^5 + (n+1)^5 + 6(n^3 + (n+1)^3)$ $b_n = -n^{10}$
New and unproven	$\frac{2}{2\zeta(5)-2\zeta(3)-1} = 3 - \frac{1^8}{275-\frac{2^8}{465-\frac{3^8}{1785-\ldots}}}$	$a_n = n^5 + (n+1)^5 + 6(n^3 + (n+1)^3) - 4(2n+1)$ $b_n = -n^{10}$
New and unproven	$\frac{64}{64\zeta(5)+176\zeta(3)-273} = 13 - \frac{1^8}{165-\frac{2^8}{815-\frac{3^8}{2695-\ldots}}}$	$a_n = n^5 + (n+1)^5 + 16(n^3 + (n+1)^3) - 4(2n+1)$ $b_n = -n^{10}$
New and unproven	$\frac{1}{\zeta(7)-4\zeta(3)+4} = 5 - \frac{1^8}{333-\frac{2^8}{4255-\frac{3^8}{28007-\ldots}}}$	$a_n = n^7 + (n+1)^7 + 8(n^5 + (n+1)^5)$ $-8(n^3 + (n+1)^3) + 4(2n+1)$ $b_n = -n^{14}$