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Title:	Classroom: Euler's Summation Method
Authors:	Paranjape, K.H. (/jspui/browse?type=author&value=Paranjape%2C+K.H.)
Keywords:	Infinite sums Convergence Accuracy
Issue Date:	2020
Publisher:	Springer
Citation:	Resonance, 25(7), pp.1045-1053.
Abstract:	<p>In this section of Resonance, we invite readers to pose questions likely to be raised in a classroom situation. We may suggest strategies for dealing with them, or invite responses, or both. "Classroom" is equally a forum for raising broader issues and sharing personal experiences and viewpoints on matters related to teaching and learning science. What is the meaning of an infinite sum? This question has fascinated mathematicians for a long time; from Zeno's paradox and the series of Madhava and Leibnitz to more contemporary times. Euler, Fourier and others played insouciantly with infinite series until Abel, Cauchy and Weierstrass gave us a safe and dependable way to "do the right thing" with infinite series. Like other such instances in Mathematics, this did not shut the door on the older playground. Rather it provided a framework to play in it with greater clarity. The author learned a lot about this the topic through the book on Divergent Series by G. H. Hardy, while teaching a course on "Computational Methods" at IISER Mohali.</p>
URI:	https://link.springer.com/article/10.1007%2Fs12045-020-1017-8 (https://link.springer.com/article/10.1007%2Fs12045-020-1017-8) http://hdl.handle.net/123456789/3247 (http://hdl.handle.net/123456789/3247)
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