After Ramanujan left us– a stock-taking exercise

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1 Remembering a giant

This article is a sequel to my article on Ramanujan [14].

April 2020 will mark the death centenary of the legendary Indian mathematician – Srinivasa Ramanujan (22 December 1887 – 26 April 1920). There will be celebrations of course, but one way to honour Ramanujan would be to do some introspection and stock-taking. This is a short survey of notable achievements and contributions to mathematics by Indian institutions and by Indian mathematicians (born in India) and in the last hundred years since Ramanujan left us.

It would be highly unfair to compare the achievements of an individual, Ramanujan, during his short life span (32 years), with the achievements of an entire nation over a century. We should also consider the context in which Ramanujan lived, and the most unfavourable and discouraging situation in which he grew up. We will still attempt a stock-taking, to record how far we have moved after Ramanujan left us.

Note : The table below should not be used to compare the relative importance or significance of the contributions listed there.

It is impossible to list out the entire galaxy of mathematicians for a whole century. The table below may seem incomplete and may contain some inadvertant errors. If you notice any major lacunae or omissions, or if you have any suggestions, please let me know at drpartha@gmail.com.

April 1920 − April 2020

	Year	Name/instit.	Topic	Recognition
1	1949	Dattatreya Ramchandra Kaprekar [1] [2]	Kaprekar constant, Kaprekar number	
2	1968	P.C. Mahalanobis [3]	Mahalanobis distance, Indian Statistical Institute Closely collaborated with Srinivasa Ramanujan, and Rabindranath Tagore	FNASc (1935) FNA (1935) OBE (1942) Weldon Memorial Prize from the Univ. of Oxford (1944) Padma Vibhushan from the Govt. of India (1968)
3	1985	Ramanujan Mathematical Society [4]	The Ramanujan Mathematical Society (RMS), founded in 1985, has the main purpose of promoting Mathematics at all levels.	
4	1987	NAROSA [5]	Ramanujan's "Lost notebook", published 67 years after his death.	

5	2002	Calyampudi Radhakrishna Rao [6] Pennsylvania State University	Cramer - Rao bound, Rao - Blackwell theorem (estimation theory)	FRS, Srinivasa Ramanujan Medal (2003), Padma Vibhushan (2001), National Medal of Science, USA (2002), India Science Award (2010) +++
6	Aug. 2002	(Manindra Agrawal, Neeraj Kayal, and Nitin Saxena) [7] Indian Institute of Technology Kanpur, India	AKS algorithm (general, polynomial, deterministic, and unconditional primality-proving algorithm)	Gödel Prize (2006), Fulkerson Prize (2006), +++
7	2005	SASTRA Univ., India [8]	Since 2005, The SASTRA Ramanujan Prize is awarded every year to a young mathematician judged to have done outstanding work in Ramanujan's fields of interest. The age limit for the prize has been set at 32 (the age at which Ramanujan died).	

8	2005	Kannan Soundararajan [9] Stanford Univ. USA	Analytic number theory, particularly in the subfields of automorphic L-functions, and multiplicative number theory.	Salem Prize (2003), SAS-TRA Ramanujan Prize (2005, shared with Manjul Bhargava), Infosys science foundation prize (2011), Ostrowski prize (2011), +++
9	Jul. 2008	Narendra Krishna Karmarkar [10] (AT&T Bell Laboratories, USA)	Karmarkar's algorithm (polynomial time algorithm for linear programming)	ACM : Paris Kanellakis Award (2000), Srinivasa Ramanujan Birth Centenary Award (1999), +++
10	2014	Manjul Bhargava [11] (Princeton Univ., USA)	Geometry of numbers (elliptic curves)	Fields medal (2014), Fellowship of the Royal Society(2019), Clay Research Award (2005), +++

11	2018	Akshay Venkatesh [12] (Institute for Advanced Study, USA)	Analytic number theory, homogeneous dynamics, topology, and representation theory	Fields medal (2018), Sastra Ramanujan Prize (2008), +++
12	2020	Vashishtha Narayan Singh[13] UC Berkley (USA), +++	Cycle Vector Space Theory	Padma Shri (2020), +++

2 Closing remarks

Details of Ramanujan, his life and his contributions can be found in [14]. Take a look.

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Citation details for this paper are given in [15].

If you found this article useful, please send a note to drpartha@gmail.com . As always, suggestions and constructive comments are always welcome.

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