

A MacMahon Partition Analysis View of Cylindric Partitions

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In this talk, we first give a brief introduction about the Rogers-Ramanujan identities and some generalizations of the same type, we also define cylindric partitions and explain their connections with the Rogers-Ramanujan type identities. We will then focus on solving q -recurrences and discovery formulas for a D-finite family of functions which are finite forms of the generating functions through an application of MacMahon's partition analysis on cylindric partitions.