1105-05-14 **George E Andrews*** (gea1@psu.edu), 306 McAllister Bldg., Mathematics Department, Pennsylvania State University, University Park, PA 16802. *Partitions with fixed difference between largest and smallest parts.*

This is joint work with Matthias Beck and Neville Robbins. Let p(n,t) denote the number of partitions of n in which the difference between largest and smallest parts is t. We shown that when t>1 the related generating function is an explicitly given rational function. We then generalize this to p(n,t1,t2,...,tk) which denotes the number of partitions of n in which there is a subsequence of parts s0,s1,s2,...,sk (where s0 is the smallest part and sk is the largest part) such that s1-s0=t1, s2-s1=t2, s3-s2=t3, ... Again the related generating function is an explicitly given rational function. (Received May 26, 2014)