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**Review text:**

The topic of this short paper is the study of some probability measures on the “space of strict partitions”

$$\Lambda := \{\lambda = (\lambda_1, \dots, \lambda_N) : N, \lambda_1, \dots, \lambda_N \in \mathbb{N}, \lambda_1 > \dots > \lambda_N\}.$$

The first measure, denoted by  $\text{Pl}_\theta$  is obtained from the Plancherel (probability) measure  $\text{Pl}_n$  on  $\{\lambda \in \Lambda : |\lambda| := \sum_i \lambda_i = n\}$ , by letting  $n$  be Poisson with parameter  $\theta/2$ , for some  $\theta > 0$ . The second measure, denoted by  $M_{\nu, \xi}$ , with  $\nu = \frac{1}{2}\sqrt{1 - 4\alpha}$ ,  $\alpha > 0$ ,  $0 < \xi < 1$ , is obtained by a measure which has Radon-Nikodym derivative

$$\prod_i \prod_{j=1}^{\lambda_i} (j(j-1) + \alpha)$$

with respect to  $\text{Pl}_n$ , when  $n$  has a negative binomial distribution  $\propto (\alpha/2)^n \xi^n / n!$ ,  $n \in \mathbb{Z}_+$ . Both measures are viewed as laws of point processes on  $\Lambda$ . It is shown that both point processes are determinantal in that their  $k$ -point correlation functions,  $\rho_k(x_1, \dots, x_k)$ , where  $x_1, \dots, x_k \in \mathbb{N}$  are locations of particles, are given as determinants:  $\rho(x_1, \dots, x_k) = \det_{i,j=1}^k K(x_i, x_j)$ . The kernels  $K(x, y)$  are identified explicitly in both cases.

When  $M_{\nu, \xi}$  is viewed as a measure on the bigger space  $\{0, 1\}^{\mathbb{N}}$ , the weak limit, as  $\xi \rightarrow 1$ , is shown to exist and is shown to be the law of a determinantal point process with explicitly computed correlation kernel.

Finally, a transformation of point processes on  $\mathbb{N}$  to point processes on  $\mathbb{R}_+$ , defined by the embedding  $\mathbb{N} \ni x \mapsto (1 - \xi)x \in \mathbb{R}_+$ , is considered. The image

of  $M_{\nu,\xi}$ , under this transformation, is also shown to have a weak limit, which is also determinantal with correlation kernel explicitly computed in terms of the Whittaker functions, and also in terms of the Macdonald functions.