

# **A convoluted Generalized Multiplicity Distribution and associated phenomenologically analogous Lee-Yang phase transitions**

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A new distribution is obtained from a convolution of the Generalized Multiplicity Distribution (GMD) with the Negative Binomial Distribution (NBD). This distribution models the charged particle production from hard and soft processes, with comparisons made with other multiplicity distribution models. A phenomenologically analogous Lee-Yang phase transition is examined using the new model.

**Primary author:** Mr LEONG, Qixiang (National University of Singapore)

**Co-authors:** Prof. CHAN, Aik Hui (National University of Singapore); Prof. OH, Choo Hiap (National University of Singapore); Mr SEAH, Shannon (National University of Singapore)

**Presenter:** Mr LEONG, Qixiang (National University of Singapore)

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