

FREE INFINITELY DIVISIBLE DISTRIBUTIONS FROM A POINT OF VIEW OF SUBORDINATORS AND MIXTURES

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Voiculescu introduced “free independence” and “free convolution” as new independence and convolution in non-commutative probability. After that, to understand free limit theorems, free infinitely divisible distributions were introduced and characterized [3]. In paper [2] by Bercovici and Pata, they found a bijection between classical and free infinitely divisible distributions. It is called Bercovici-Pata bijection. This mapping connects Gaussian, stable and self-decomposable distributions in free probability with these in classical probability [1].

In this talk, we focus on differences between properties of classical and free infinitely divisible distributions to understand finer structure of them than one the Bercovici-Pata bijection gave. When we study laws of free counterpart of subordinators, some different and interesting phenomena from classical one are observed. In addition, mixtures of distributions in free probability plays crucial roles. New examples which in intersection of the sets of classical and free infinitely divisible distributions are also found.

REFERENCES

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