OPERATOR-LIMIT DISTRIBUTIONS IN PROBABILITY THEORY

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The central theme of that monograph are limit distributions in a scheme

(1) $A_n(X_1 + X_2 + ... + X_n) + x_n, \quad n = 1, 2, ...$

where X_i's are $\mathbb{R}^d$-valued independent random vectors, A_i's are MATRICES (linear bounded operators) on $\mathbb{R}^d$ and x_i's are deterministic $\mathbb{R}^d$ shift vectors.

If in (1) one assumes that the triangular array A_nX_k, $1 \leq k \leq n$, $n \geq 1$, is uniformly infinitesimal then limit distributions are called *operator-selfdecomposable*. This class includes the classical selfdecomposable measures.

For independent and identically distributed X_i's limiting laws are called *operator-stable* measures. Among them we have the classical and well know stable measures.

For reviews, please, see the following:
1) MR 95b:60018
2) Bull. American Mathematical Society, **32**, No 2, April 1995; p. 278.
3) Siam Review, **37**, No 1, March 1995; p. 131.