LAW OF LARGE NUMBERS FOR MONOTONE CONVOLUTION

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Abstract: Using the martingale convergence theorem, we prove a law of large numbers for monotone convolutions $\mu_1 \triangleright \mu_2 \triangleright \ldots \triangleright \mu_n$, where $\mu_j$’s are probability laws on $\mathbb{R}$ with finite variances but not required to be identical.

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