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DISTRIBUTION PROCESSES OF THE FRACTIONAL ARMA TYPE, MIXING PROPERTIES

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Abstract: In this paper we firstly study f, the inverse Laplace transform of $F(s) = \prod_{k=1}^{K} (s - a_k)^{d_k}$. The distribution f is then used to define a family of linear distribution processes. This family generalizes the so-called fractional ARMA processes $X_t = \int_{-\infty}^t f(t - s) dW_s$ which were introduced by Viano et al. [14] in the case of square integrable f. Using previous results [1] we describe the regularity properties of the distribution process associated with F. Finally, we give a definition of the mixing coefficients suitable for distribution processes, and we obtain conditions on the parameters with F needed for fractional ARMA distribution processes to be mixing.

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