Regression and Time Series for Infinitely Divisible Distributions

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There is a natural way, generalising linear regression and autoregressive processes, to model regression and time series when the marginal distributions are infinitely divisible. In the continuous case, it is particularly simple. The case of stable distributions and the gamma distribution will be discussed. In the discrete case, auxiliary randomisation is required in the regression component. The case of the Poisson distribution will be discussed. This is joint work with Diana Pallant, Paul Feigin, Stanislaus Uyanto and Hwan Jin Yoon.