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Nonparametric estimation of gradual change points in the jump behaviour of an Ito semimartingale

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In applications the properties of a stochastic feature often change gradually rather than
abruptly, that is: after a constant phase for some time they slowly start to vary. The goal of this talk is to
introduce an estimator for the location of a gradual change point in the jump characteristic of a
discretely observed Ito semimartingale. To this end we propose a measure of time variation for the
jump behaviour of the process and consistency of the desired estimator is a consequence of weak convergence
of a suitable empirical process in some function space. Finally, we discuss simulation results which verify that
the new estimator has advantages compared to the classical argmax-estimator.

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