Rates of convergence to the local time of sticky processes

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Résumé

We prove that functional of the trajectory of sticky processes converge to the local time of the underlying process.
We use this result to construct a consistent stickiness estimator.

It is worth mentioning that the estimation of the stickiness parameter of a diffusion is as far as we know a largely untouched subject in the probabilistic literature.
We use numerical examples to assess the convergence speed of the estimator and to compare the convergence result with a result on non-sticky diffusions.

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