

**Bacry, Emmanuel; Bompairé, Martin; Deegan, Philip; Gaïffas, Stéphane; Poulsen, Søren V. tick: a Python library for statistical learning, with an emphasis on Hawkes processes and time-dependent models.** (English) Zbl 06982970  
*J. Mach. Learn. Res.* 18(2017-2018), Paper No. 214, 5 p. (2018)

Summary: This paper introduces `tick`, is a statistical learning library for Python 3, with a particular emphasis on time-dependent models, such as point processes, tools for generalized linear models and survival analysis. The core of the library provides model computational classes, solvers and proximal operators for regularization. It relies on a C++ implementation and state-of-the-art optimization algorithms to provide very fast computations in a single node multi-core setting. Source code and documentation can be downloaded from <https://github.com/X-DataInitiative/tick>.

#### MSC:

- 62-04 Software, source code, etc. for problems pertaining to statistics
- 62J12 Generalized linear models (logistic models)
- 62N05 Reliability and life testing
- 60G55 Point processes (e.g., Poisson, Cox, Hawkes processes)
- 68T05 Learning and adaptive systems in artificial intelligence
- 90-04 Software, source code, etc. for problems pertaining to operations research and mathematical programming

Cited in 1 Document

#### Keywords:

learning; Python; Hawkes processes; optimization; generalized linear models; point process; survival analysis

#### Software:

Tick; Python; Scikit; GitHub

**Full Text:** [Link](#)

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