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## Weak ergodicity breaking: from single molecules in the live cell to blinking quantum dots

In nature the time trace of a signal might be random however its long time average converges to the corresponding ensemble average (ergodicity). We discuss weak ergodicity breaking a framework introduced by Bouchaud, which describes statistical properties of dynamical systems with power law distributed sojourn times. Examples of blinking quantum dots and diffusion of single molecules in the cell are discussed. The basic question is what is the statistical mechanical framework replacing the Boltzmann-Gibbs formalism and the consequence for single molecule tracking.

## References

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