

## Standard stochastic coalescence with sum kernels

Fournier Nicolas, *Paris 12*

### Abstract

We build a Markovian system of particles entirely characterized by their masses, in which each pair of particles with masses  $x$  and  $y$  coalesce at rate (approximately)  $x^a + y^a$ , for some  $a$  in  $(0,1)$ , and such that the system is initially composed of infinitesimally small particles.

Full text: [PDF](#) | [PostScript](#)

Pages: 141-148

Published on: August 7, 2006

### Bibliography

1. D.J. Aldous. Brownian excursions, critical random graphs and the multiplicative coalescent. *Ann. Probab.* 25, no. 2, 812-854, (1997). [Math. Review MR1434128 \(98d:60019\)](#)
2. D.J. Aldous, J. Pitman. The standard additive coalescent. *Ann. Probab.* 26, no. 4, 1703-1726, (1998). [Math. Review MR1675063 \(2000d:60121\)](#)
3. D.J. Aldous. Deterministic and Stochastic Models for Coalescence (Aggregation, Coagulation): A Review of the Mean-Field Theory for Probabilists. *Bernoulli* 5, 3-48, (1999). [Math. Review MR1673235 \(2001c:60153\)](#)
4. S.N. Evans, J. Pitman. Construction of Markovian coalescents. *Ann. Inst. H. Poincaré Probab. Statist.* 34, no 3, 339-383, (1998). [Math. Review MR1649003 \(99j:60109\)](#)
5. N. Fournier. On some stochastic coalescents. *Prob. Th. Rel. Fields*, to appear, 2006.
6. N. Fournier, E. Loecherbach. On some stochastic coalescents. Preprint, 2006.
7. J.F.C. Kingman. The coalescent. *Stoch. Proc. Appl.* 13, no 3, 235-248, (1982). [Math. Review MR0671034 \(84a:60079\)](#)
8. A. Lushnikov. Some new aspects of coagulation theory. *Izv. Akad. Nauk SSSR, Ser. Fiz. Atmosfer. I Okeana* 14 no 10, 738-743, (1978).
9. A. Marcus. Stochastic coalescence. *Technometrics* 10 133-143, (1968). [Math. Review MR0223151 \(36 #6200\)](#)

### Research Support Tool

[Capture Cite](#)  
[View Metadata](#)  
[Supplementary Files and / or CORRECTIONS](#)  
[Printer Friendly](#)

▼ [Context](#)

[Author Address](#)

▼ [Action](#)

[Email Author](#)  
[Email Others](#)

