

## Connected allocation to Poisson points in $\mathbb{R}^2$

Maxim Krikun, *IECN, Universite Nancy 1*

### Abstract

This note answers one question in [1] concerning the connected allocation for the Poisson process in  $\mathbb{R}^2$ . The proposed solution makes use of the Riemann map from the plane minus the minimal spanning forest of the Poisson point process to the halfplane. A picture of a numerically simulated example is included.

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

Pages: 140-145

Published on: May 8, 2007

### Bibliography

1. C. Hoffman, A.E. Holroyd, Y. Peres. A stable marriage of Poisson and Lebesgue. *Ann. Probab.* 34 (2006), 1241--1272. [Math. Review 2257646](#)
2. K.S. Alexander. Percolation and minimal spanning forests in infinite graphs. *Ann. Probab.* 23 (1995), 87--104. [Math. Review 1330762](#)
3. S. Chatterjee, R. Peled, Y. Peres, D. Romik. Gravitational allocation to Poisson points (2006), [math.PR/0611886](#)
4. R. Lyons, Y. Peres, O. Schramm. Minimal spanning forests. *Ann. Probab.* 34 (2006), 1665--1692. [Math. Review 2271476](#)
5. D.E. Marshall, S. Rohde. Convergence of the zipper algorithm for conformal mapping (2006), [math.CV/0605532](#)

### Research Support Tool

[Capture Cite](#)  
[View Metadata](#)  
[Printer Friendly](#)

▼ [Context](#)

[Author Address](#)

▼ [Action](#)

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