

# Spatial Statistics' New Frontiers

Edzer Pebesma

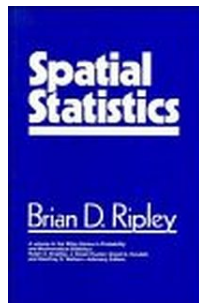


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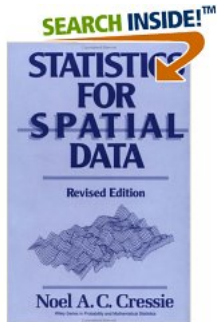
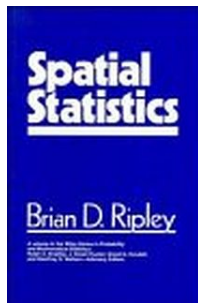
Institute for Geoinformatics  
University of Münster

IAMG 2015, Sep 5-13, 2015, Freiberg

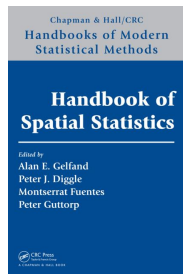
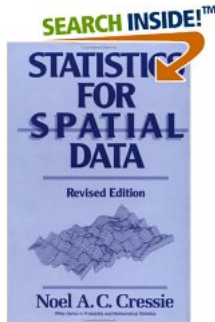
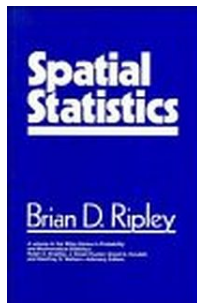
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<http://www.spatialstatistics.info/>



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studies interdisciplinary problems, where mathematical/statistical developments are applied in innovative applications.

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Disciplines:

- ▶ spheres (litho-/hydro-/pedo-/atmo-/bio-sphere),
- ▶ social (geography, economy, transport),
- ▶ interactions (environmental health, epidemiology, ecology, land use, global change).

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Frontiers:

- ▶ methodological/theoretical
- ▶ applications/practical/semantical
- ▶ social

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generalizing:

- ▶ fostering space-time
- ▶ beyond multivariate Gaussian
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relaxing assumptions:

- ▶ inference on generalized linear mixed models
- ▶ approximate Bayesian inference
- ▶ non-stationarity models, SPDE's

# Spatial Statistics' application frontiers

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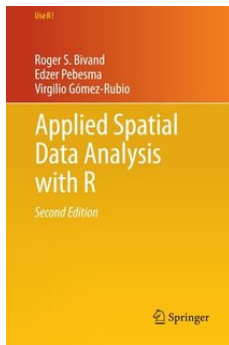
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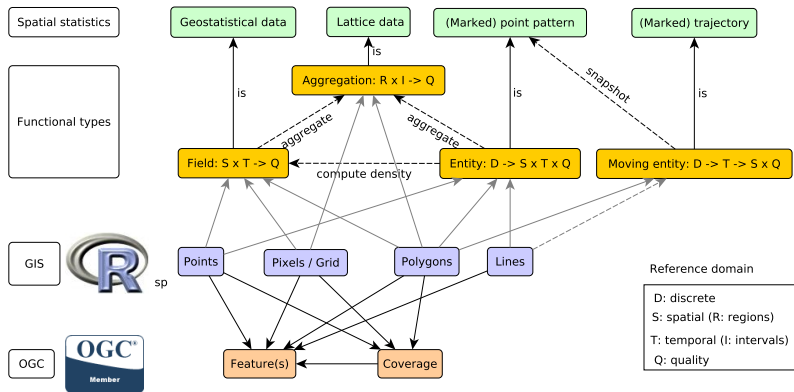
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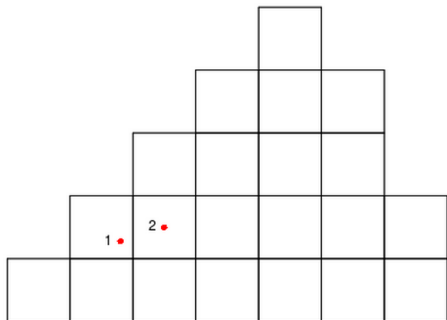
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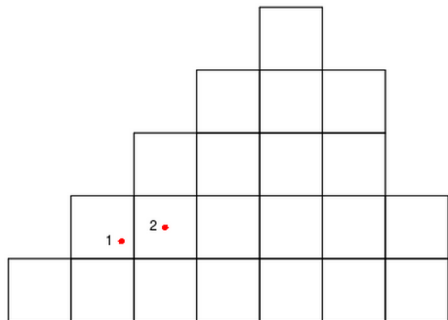
# Spatial Statistics' application frontiers: semantics



## Retrieving a point value from a grid cell



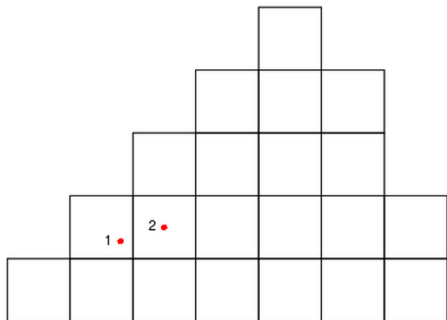
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Three simplest cases:

point	cell is point	cell is constant	cell is aggregation
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how can software know what to do?

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Thank you for your attention!