

*Séminaire de Statistique appliquée***mercredi 3 avril 2013 de 13H30 à 17H**

salle 17.2.07

(292 rue Saint Martin – Paris 3<sup>ème</sup>)**“ The role of Geostatistics in Environmental Epidemiology ”**

*présenté par* **P. Goovaerts** <https://sites.google.com/site/goovaertspierre/>  
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**Abstract**

Since its development in the mining industry, geostatistics has emerged as the primary tool for spatial data analysis in various fields, ranging from earth and atmospheric sciences, to agriculture, soil science, environmental studies, and more recently exposure assessment. In the last few years, these tools have been tailored to the field of medical geography or spatial epidemiology, which is concerned with the study of spatial patterns of disease incidence and mortality and the identification of potential “causes” of disease, such as environmental exposure or socio-demographic factor.

This seminar will provide an overview of geostatistical methods available for the analysis of environmental and health data both at the individual-level and aggregated. It will also introduce a suite of techniques for the visualization and analysis of time series of health data, including 3D display of health outcomes in a combined time and geography space, binomial kriging to filter noise in the data, joinpoint regression analysis to model time trends, and hierarchical cluster analysis to classify geographical units according to their temporal trends.

**Planning de l'après-midi:**

13h30 à 14h : accueil autour d'un café

14h – 15h45 : Exposé

15h45 – 16h : Pause Café

16h – 17h : Discussion avec Pierre Goovaerts

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