Geophysical Research Abstracts, Vol. 9, 09764, 2007

SRef-ID: 1607-7962/gra/EGU2007-A-09764

© European Geosciences Union 2007



Quali-quantitative evaluation of pollution risk in an important area of the industrial site of Taranto (Southern Italy).

V. A. de Trizio, G.Orlando, C. M.Torre

Politecnico of Bari - v.detrizio@poliba.it

Geo-statistics are often used in risk analysis. The robustness of such kind of approach is a guarantee of precision and at the same time a limit in application of models. The lack of information, or the lack of information at the appropriate scale, represent an insight for trying to aggregate quantitative and statistical models with other qualitative approach. The linearization imposed by techniques of kriging and smoothing, represents a further limitation, which become more relevant when data which can refer to an isotropous layer (eg. Air pollution components) are interfaced with informations describing anisotropous space, characterized by the existence of settlements activities following un-homogeneous distribution (Burghess and Webster, 1980 - Davis, 1987 - Wackernagel, 1995 - Goovaerts, 1997).

This paper starts from an application of quali-quantitative evaluation of risk by intersecting a quantitative analysis of pollution (as measure of hazard dimension) with a qualitative analysis of the spatial organization of settlement (as measure of exposition to the hazard) in an important area of the industrial site of Taranto (Southern Italy). The intersection is processed by using a procedure of fuzzy multicriteria analysis (Munda G., 1995).

References:

- Munda G. (1995): "Multicriteria Evaluation in a Fuzzy environment", Phisica-Verlag, the Hague.
- Italian Society of Soil Science and University of Naples Federico II (2003): "Course of Geo-statistics applied to the study of Soils"