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## #09-210 Radionuclides contamination in soil; effect, source and spatial distribution

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Radionuclide concentrations in the soil depend on the geological and anthropogenic activities of an area. They influence level of gamma radiation in the environment, which can cause significant health risk in humans. Due to the non-uniform distribution of radionuclides in the soil, various measurement methods have been adopted to monitor our environment. The challenges involved in collecting environmental samples, duration, technicality, and cost of measurement have led to various models for predicting unmeasured locations. This article presents geostatistical method using kriging techniques, which adopt the theory of regionalized variables, to characterize the spatial distribution of radionuclide in unsampled locations using data obtained from the sampled location. Knowledge of spatial distribution of radionuclides provides important information needed by regulatory authorities in identifying the contaminated area that are in need of remediation.

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