Editor's Introduction

Modern society is a competitive society where reducing existent costs is very important, which also is the ultimate goal of risk analysis and crisis response. In the present issue such efforts have been embodied in these papers. This issue contains 6 papers. The first three contributions are written in English and the last three in Chinese with English abstracts.

Risk assessment category includes the following three papers. The first paper "The Assessment of Risk Caused by Fire and Explosion in Chemical Process Industry: a Domino Effect-Based Study" by Farid Kadri, Eric Chatelet and Patrick Lallement, presents a method for risk assessment of domino effects caused by heat radiation and overpressure on industrial sites. This methodology is based on the probabilistic models and the physical equations. It allows quantifying the effect of the escalation vectors (physical effects) in industrial plants. The second paper "On the Renewal Risk Model with Constant Interest Force" by Thampi and Jacob, considers a renewal risk model with constant interest force for an insurance portfolio. In the paper, the authors discuss equations for the survival probability and its Laplace-Stieltjes transforms have been obtained. It provides recursive algorithm for the upper and lower bounds for the ruin/survival probability under interest force. Finally, an exponential integral equation for the survival probability is derived. The third paper is "Decision-Making Model in the Environment of Complex Structure Data" submitted by Fusheng Yu and Shihu Liu, aims to discover a underlying community structure of the data by taking all aspects of original information into account. In this paper, the considered data is diversity, not only in structure but also in representation. What is more, a missing data compensation method is proposed by considering the information losing situation in practical decision making problem. Research shows that this model has great maneuverability. Especially, the proposed decision model seems more consistent with the actual decision problem, than decision model with single data structure.

In order to evaluate the environmental impact of a hazardous waste incinerator, in paper "Health Risks of Environmental Exposure to PCDD/Fs near a Hazardous Waste Incinerator in Catalonia, Spain " by Montse Mari, et al., 30 vegetation and soil samples were alternatively collected. The data were compared with those of previous campaigns, and especially with PCDD/F levels in the same monitors reported in the baseline study. It demonstrates that the health risks associated to environmental exposure of PCDD/Fs are currently within acceptable ranges.

The paper "Meteorological Grading Indexes of Water–saving Irrigation for Corn" by Xiao, Huo, et al., builds the water–saving irrigation meteorological grading indexes of different development stages of maize, aiming to optimize irrigation and provide a technical guide on agricultural production. The data are very useful for researchers who study agrometeorological hazard risk.

There is one paper in the risk analysis, titled "Research on Characteristics and Formation Mechanism of Landslide Disaster in Red Soil Hilly Region of South China" by Gong, Huang, Zhang, analyzes the regularity of landslides regional differentiation based on the field investigations and the available data in the red soil hilly region of south China. This paper reveals the growth characteristics and disaster mechanism of landslide by study the relationship between the characteristics of intensity and frequency of landslide and meteorological factors, hydrologic geology, geologic factors, landform and human factors and so on. Based on the above results, a regional landslide prediction model is obtained by quantification approach in this paper.

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