

基于“情景-应对”的国家应急平台体系基础科学问题与集成平台

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Key problems on fundamental science and technology integration in "scenario-response" based national emergency response platform system

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摘要 基金委“非常规突发事件应急管理研究”重大研究计划集成项目直接面向和紧密围绕重大研究计划的总体目标从两方面开展研究:提升现有国家应急平台体系科学性的多学科融合的基础研究;相关研究成果的集成升华和与国家应急平台体系的“对接”。具体包括:突发事件应急场景下数据集成、组织与存储、数据共享方法研究;面向应急辅助决策的定量与定性相结合的案例分析与集成管理方法;网络分布式多模型环境下的智能化应急决策模型库构建方法;个体和群体在紧急状态下的心理反应与行为规律;面向“情景-应对”型决策、与国家应急平台体系相融合的应急管理开放式集成研究平台设计与构建;基于集成平台的突发事件情景推演与决策过程模拟仿真与集成应用示例。提出“数据融合-模型推演-案例推理-心理行为规律”综合集成的“情景-应对”型应急决策理论和方法;构建基于“网络集成-计算集成-应用系统集成”三层交互的,与国家应急平台体系相融合的,跨学科、跨地域协作共享的“交响”式应急管理开放集成研究平台。

关键词: “信息-管理-心理”交叉融合的应急情景推演 “情景-应对”型决策 “网络-计算-应用系统”三层交互的开放式集成研究平台

Abstract: This paper is to give a brief introduction of the major program of emergency management. The program is to achieve pre-designed goal of the NSFC Major Research Plan on emergency management. This project aims on two directions: performing multidiscipline fundamental research on the key problems in national emergency platform system; integrating research projects under the Major Research Plan and applying to the national emergency platform system. The research objectives include the following areas: Data collection, selection, organization, storage and fusion during emergency; case study and analysis on decision making; network based model integration using for assisting intelligent decision making, individual and group mental models and behaviors during emergency; "scenario-response" based decision making research platform establishment; demonstration on decision process under integrated research. Two methods are used in the project, which are "data-model-case-social behavior" integrated situation awareness and "scenario-response" based emergency decision making process. This project will establish "network intergation-simulation integration-application integration" structure to integrate various projects and develop an integrated open research platform, which can be accessed remotely, to achieve effective emergency management.

Key words: "information-management-human behavior" integrated scenario simulation "scenario-response" based decision making integrated open research platform with "network-simulation-application" integration

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