

# Conference program

RACR  
2019



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## ***7th International Conference in Risk Analysis and Crisis Response***

***Risk Analysis Based on Data and Crisis Response Beyond Knowledge, 15-19  
October, 2019, Athens, Greece***

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Abbreviation	Topics
ARS	Applying risk science based on data
SE	Stakeholder engagement to manage risks
RS	Reliability and safety in industrial systems
MT	Modern trends in crisis management
IOI	Internet of Intelligences and risk radar
Nano	Nanotechnology safety
Tran	Safety in transport domain
OHS	Progress in occupational health and safety
NaTech	Natural hazards inducing technique accidents
HFIE	Human factors in the industrial environment
LAs	Legal aspects in major accidents prevention
Belt&Road	Disaster risks in line with "Belt and Road"
PIF	Risk analysis in project investment and finance
Black-swan	Risk analysis related to black-swan events
Terrorist	Terrorist attack and crisis response

**Tuesday, 15 October 2019**

6:00:00 PM -  
8:00:00 PM

**Registration - Welcome Drink**

# Conference Program

Wednesday, 16 October 2019	
9:00:00 AM - 9:15:00 AM	<b>Opening - Welcoming</b>
9:15:00 AM - 9:30:00 AM	<b>Greetings</b> Dr. Athanassios Stubos, Director, NCSR "Demokritos", Greece Dr. Artemis Galani, General Secretariat for Civil Protection, Greece
9:30:00 AM - 10:00:00 AM	<b>Plenary speech</b> "Black swans and dragons" <b>Prof. Ben Ale</b>
10:00:00 AM - 11:15:00 AM	<i>Chair session: Prof. Ben Ale</i>
<b>Session 1</b>	Equity measurement of spatial layout for emergency shelter with consideration of the needs of vulnerable population <i>Qiang Li, Jing Guo, Xiaoyue Tan, Jin Chen</i>
	Pool Fire of liquefied natural gas <i>Mattia Carboni, Valerio Cozzani, Tommaso Iannaccone, Gianmaria Pio, Ernesto Salzano</i>
	Review of risk assessment guidelines for LNG ship bunkering <i>Olga Aneziris, Ioanna Koromila, Zoe Nivolianitou</i>
	Developing a risk-based method for predicting the severity of fire accidents in road tunnels <i>Panagiotis Ntzeremes, Konstantinos Kirytopoulos, Vrassidas Leopoulos</i>
	Risk-based Fault Assessment and Priority Analysis for Safety Management in Industrial Systems <i>Guozheng Song, Faisal Khan, Nicola Paltrinieri</i>
11:15:00 AM - 11:45:00 AM	<b>Coffee Break</b>
11:45:00 AM - 1:00:00 PM	<i>Chair session: Prof. Ioannis Dokas</i>
<b>Session 2</b>	Study on system testing approach-based risk evaluation of subsea tree <i>Xiaobing Yuan, Baoping Cai, Guoming Chen</i>
	A fuzzy extension to the risk situation awareness provision indicator (RiskSOAP) <i>Apostolos Zeleskidis, Ioannis Dokas</i>
	Mass notification for public safety: current status and technical challenges <i>Christodoulos Asiminidis, Sotirios Kontogiannis, George Kokkonis, Nicholaos Zinas, Charis Papadopoulos</i>
	Using game theory for deployment of security forces in response to multiple coordinated attacks <i>Cheng-Kuang Wu</i>
	Quantitative analysis and risk assessment of terrorist attacks <i>Mei Hong, Ren Zhang, Jingjing Ge, Ming Li, Liang Zhao</i>
1:00:00 PM - 2:00:00 PM	<b>Lunch Break</b>
2:00:00 PM - 3:30:00 PM	<i>Chair session: Dr.Cheng-Kuang Wu</i>
<b>Session 3</b>	Farmers' risk perception and its impact on climate change adaptation behavior <i>Jianjun Jin, Rui He, Xinyu Wan, Foyuan Kuang, Jing Ning, Yuhai Wang, Xia Hu</i>
	Swarm of UAVs as an emergency response technology <i>Ilias Gkotsis, Agavi-Christina Kousouraki, George Eftychidis, Panayiotis Kolios, Maria Terzi</i>
	Development of agricultural risk management system in Japan and enlightenment to China <i>Yueqin Wang, Sijian Zhao</i>
	Stakeholders' engagement in emergency management – An overview from the Danish offshore wind sector <i>Dewan Ahsan, Soren Pedersen</i>
	An empirical study on risk perception of hazardous chemical <i>Tiezhong Liu, Jinyang Dong, Yan Chen, Hubo Zhang</i>
	Modeling of Scientific Collaboration Network of Megaprojects Based on Risk Analysis <i>Jinyang Dong, Tiezhong Liu, Zhixiang Li</i>
3:30:00 PM - 4:00:00 PM	<b>Coffee Break</b>
4:00:00 PM - 5:30:00 PM	<i>Chair session: Prof. Aiwen Liu</i>
<b>Session 4</b>	Risk analysis of seismic hazard correlation between nuclear power plants <i>Qing Wu</i>
	Impact factor selection and nonlinear assessment model for extreme disaster losses caused by typhoons <i>Hexiang Liu, Qingjuan Xu, Jianwei Chen</i>
	Research on risk assessment methods of urban disaster chain during the Beijing Winter Olympics <i>Mengting Liu, Wei Zhu, Jianchun Zheng, Qiuju You</i>
	Gephi network analysis method for determining assessment indexes of extreme high temperature weather risk about electric power system — a case study of Beijing City <i>Chunming Shen, Wei Zhu, Liping Xu, Xiru Tang, Jianchun Zheng, Shunquan Yuan</i>
	Entropy based multi-criteria evaluation for rainfall monitoring networks under seasonal effect <i>Heshu Li, Dong Wang, Yuankun Wang</i>

Color legend of topics

Plenary	ARS	SE	RS	MT	IOI	Nano	Tran	OHS	NaTech	HFIE	Las	Belt&Road	PIF	Black-swan	Terrorist
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# Conference Program

Thursday, 17 October 2019	
9:30:00 AM - 10:00:00 AM	<p><b>Plenary speech</b></p> <p><b>“Human Behaviors in Emergency: Panic in Disasters in China”</b></p> <p><b>Prof. Shoji TSUCHIDA</b></p>
10:00:00 AM - 11:15:00 AM	<p>Chair session: Prof. Shoji TSUCHIDA</p> <p>A new economic loss assessment system for urban severe rainfall and flooding disasters <i>Xianhua Wu, Ji Guo, Guo Wei</i></p> <p>Mutual information-based approach for vine copula selection for hydrological dependence modeling <i>Lingling Ni, Dong Wang, Jianfeng Wu</i></p> <p>Assessing the joint dependence of air-water temperature and discharge-water temperature in the middle reach of Yangtze River using POME-copula <i>Yuwei Tao, Yuankun Wang, Dong Wang</i></p> <p>Temporal and spatial dynamic characteristics analysis of Inner Mongolia grassland fire <i>Duwala Yushan, Guixiang, Liu Hongyan, Zhang Huijuan, Liu Wunitu</i></p> <p>Influence factors analysis of tornado-destroyed houses in Funing, Jiangsu, China <i>Jingyi Gao, Peng Qiao, Guofang Zhai, Dalin Cheng</i></p>
11:15:00 AM - 11:45:00 AM	<b>Coffee Break</b>
11:45:00 AM - 1:00:00 PM	<p>Chair session: Prof. Guofang Zhai</p> <p>Human health risk assessment via groundwater DNAPLs migration model <i>Yue Pan, Xiankui Zeng, Jichun Wu, Dong Wang</i></p> <p>Responds of Paramecium caudatum to the stress of tetracycline and tetracycline hydrochloride <i>Minglei Du, Ye Zhao, Xiang Wang, Weibin Zheng, Chang Ge, Ying Chen, Yawen Fan</i></p> <p>Correlation study of safety and emergency management information systems based on social network analysis <i>Yi Zhou, Xuwei Ji, Aizhi Wu, Fucai Yu, Yonghua Han, Liping Fang, Yanyan Zhang</i></p> <p>Analysis of factors affecting construction safety management of steel structures <i>Anqi Lu, Qian Wu, Na Li, Xin Hu</i></p> <p>Unsafe behavior causation analysis of hazardous chemicals accidents based on BN-HFACs method <i>Xiaowei Li, Tiezhong Liu</i></p>
1:00:00 PM - 2:00:00 PM	<b>Lunch Break</b>
2:00:00 PM - 3:30:00 PM	<p>Chair session: Prof. N. Ventikos</p> <p>Driving factors affecting investment risk in international infrastructure construction focusing on Southeastern Asia <i>Ting Yuan, Pengcheng Xiang, Qianman Zhang, Zhaoying Ye, Jianbin Zhang</i></p> <p>Analysis of compliance risks in overseas infrastructure projects under the Belt and Road Initiative <i>Zhaoying Ye, Pengcheng Xiang, Wenwu Xiang, Feng Jin, Sanshan Wei</i></p> <p>Social network analysis of the relationship between risks of overseas high-speed rail projects <i>Jianbin Zhang, Pengcheng Xiang, Ting Yun, Mingming Hu</i></p> <p>Contagion effect of associated credit risk in supply chain based on dual-channel financing <i>Xiaofeng Xie, Yang Yang, Jing Gu, Qian Qian, Zongfang Zhou</i></p> <p>Risk Analysis for Non-Accidental Structural Failures of RoPax Vessels <i>Nikolaos P. Ventikos, Panagiotis Sotiralis, Konstantinos Louzis, Marios Kikkis</i></p> <p>Regional differences between climate changes and economic development in China in the historical and the future period <i>Wei Gu, Kou Bai</i></p> <p>Effects of major hurricanes in Atlantic Canada from 2003 to 2018 <i>Luana Souza Almeida, Floris Goerlandt, Ronald Pelot</i></p>
3:45:00 PM - 4:15:00 PM	<b>Coffee Break</b>
4:15:00 PM - 5:30:00 PM	<p>Chair session: Xiaolong Wang</p> <p>Source attributed QALYs lost induced by PM2.5-bound PAHs in Beijing based on PMF model <i>Hongbin Cao, Sihong Chao, Jianwei Liu, Yanjiao Chen, Xuemin Liu</i></p> <p>3-D simulation and visualization of diversion flood risk in small and medium-sized flood storage polder: a case study of Linan flood storage polder in Dongting Lake Area, China <i>Dehua Mao, Chang Feng, Ruizhi Guo</i></p> <p>Risk factors analysis for falls among the urban elderly in Beijing, China <i>Qiujie Zhang, Wei Zhu, Lugang Guo</i></p> <p>Global heat wave hazard considering humidity effects under greenhouse gas emission scenarios <i>Ning Li, Xi Chen, Wei Gu</i></p> <p>An approach to measure interaction in precipitation system under changing environment <i>Wenqi Wang, Dong Wang, Yuankun Wang</i></p>
	<b>Dinner*</b>
	*Instructions and details about the location and time, will be released during the conference

Color legend of topics

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# Conference Program

Friday, 18 October 2019	
9:30:00 AM - 10:00:00 AM	<p><b>Plenary speech</b>  <b>“Study on validity of geospatial information diffusion”</b>  <i>Prof. Chongfu Huang</i></p>
10:00:00 AM - 11:15:00 AM	<p>Chair session: <i>Prof. Hongbin Cao</i></p> <p>Improvement of risk communication in Internet of intelligences  <i>Rundong Wang, Chongfu Huang</i></p> <p>An approach to comply the geospatial information diffusion filling in gap units in Internet of intelligences for emergency rescue  <i>Yiran Yin, Chongfu Huang</i></p> <p>A Python approach to collect disaster data serving for the Internet of intelligences  <i>Wen Tian, Chongfu Huang</i></p> <p>The toxic effect of two types of nanoparticles on <i>Pseudourostyla cristata</i>  <i>Xiaohuan Zhao, Zhiwei Gong, Yang Lv, Xilei Gao, Xinpeng Fan, Bing Ni</i></p> <p>Lack of coordination in communication field, between scientific society and authorities during earthquakes- Case study of L' Aquila in Italy  <i>Ploutarchos Kerpelis, Aspasia Karamanou</i></p>
11:15:00 AM - 11:45:00 AM	<b>Coffee Break</b>
11:45:00 AM - 1:00:00 PM	<p>Chair session: <i>Dr. A. Paralikas</i></p> <p><b>Plenary speech</b>  <b>“Marie Skłodowska-Curie Actions (MSCA) : Programme overview and opportunities 2020”</b>  <i>Dr. A. Paralikas</i></p> <p>Streamflow forecasting using long short-term memory network  <i>Lingling Ni, Dong Wang, Jianfeng Wu</i></p> <p>Hydrometric network design based on Copula and entropy  <i>Wenqi Wang, Dong Wang, Yuankun Wang</i></p> <p>A Copula approach for multi-dimensional ecological risk assessment of polycyclic aromatic hydrocarbons (PAHs) in the surface sediments of Taihu Lake  <i>Wenyue Liu, Dong Wang</i></p> <p>Return period analysis for extreme rainfall in western region of Taihu Lake Basin  <i>Yuwei Tao, Yuankun Wang, Dong Wang, Dong Sheng</i></p>
1:00:00 PM - 2:00:00 PM	<b>Lunch Break</b>
2:00:00 PM - 3:30:00 PM	<p>Chair session: <i>Prof. Wei Zhu</i></p> <p>Developing a transinformation based multi-criteria optimization framework for rainfall monitoring networks  <i>Heshu Li, Dong Wang, Yuankun Wang</i></p> <p>Comparative study on seismic risk of buildings in Chinese Tibet and Nepal  <i>Changlong Li, Hongshan Lu</i></p> <p>The uncertainty research of near-field ground motion numerical simulation of Tonghai earthquake  <i>Zongchao Li, Qiao Sen, Xueliang Chen, Qing Wu, Changlong Li</i></p> <p>Seismic safety analysis of gas pipeline crossing through the Kezil thrust fault  <i>Long Wang, Yiyuan Cao, Aiwen Liu</i></p> <p>Risk of photovoltaic system on the building fire safety in China  <i>Yangyang Mu, Jin Li, Changxing Ren, Wang Zhang, Xin Zhang</i></p> <p>Mexico city's residents experience during the two strong earthquakes in 2017  <i>Jaime Santos-Reyes, Tatiana Gouzeva</i></p>
3:30:00 PM - 4:00:00 PM	<b>Coffee Break</b>
4:00:00 PM - 5:00:00 PM	<p>Chair session: <i>Prof. K. Sapountzaki</i></p> <p>Rupture direction study of two Tonghai Ms5.0 earthquakes on August 13 and 14, 2018  <i>Xueliang Chen, Quanbo Luo, Mengtan Gao, Sen Qiao, Shicheng Li, Jianwen Cui</i></p> <p>Risk analysis and preliminary countermeasures of earthquake disasters in Yunnan region  <i>Sen Qiao, Aiwen Liu, Xueliang Chen, Zongchao Li, Changlong Li, Tiefei Li</i></p> <p>A natural environment risk assessment for ship navigation on the 21st-century Maritime Silk Road  <i>Xin Li, Ren Zhang, Yang Lu, Ju Wang, Lizhi Yang</i></p> <p>Risk governance challenges in the Greek search and rescue region  <i>Athanasios Liaropoulos, Kalliopi Sapountzaki, Zoe Nivolianitou</i></p>
<b>Acropolis Museum Tour*</b>	
*Instructions and details about the location and time, will be released during the conference	
Saturday, 19 October 2019	
8:00:00 AM - 6:00:00 PM	<b>Social program with booking</b>