

Topics for presentations and posters of “The First Waterloo Conference on *Characteristics, Risk and Management of Natural Hazards (ChaRisMa)*”

General Theme:

- I. Conceptual,
- II. Theoretical,
- III. Computational and
- IV. Experimental methods for
 - a) Characteristics,
 - b) Risk and
 - c) Management, of natural hazards

Specific topics:

- 1) Mathematics,
- 2) Physics,
- 3) Geographical, Geological and Geophysical characterization
- 4) Scale analysis (Magnitude, forces, intensities),
- 5) Spatial analysis,
- 6) Statistical analysis,
- 7) Insurance policies and calculations,
- 8) Regional analysis,
- 9) Global assessment,
- 10) Social and cultural analysis,
- 11) Actuarial-analysis,
- 12) Risk, reliability and vulnerability assessment,
- 13) Modeling and computer simulation,
- 14) Prediction,
- 15) And threshold

of natural hazards, disasters and catastrophes:

- Earth quakes,
- Floods,
- Forest fires,
- Landslides,
- Storm surge,
- Tornadoes,
- Ice storm,
- Volcanoes,
- Tsunami,
- Drought,
- Desertification,
- Space weather,
- Long term changes in Earth’s magnetic fields.
- AND CLIMATE CHANGE
- CANCER
- HEALTH EPIDEMICS

16)Effect of human activities on increasing natural disasters

17)Comparison of natural disasters

and industrial (man-caused) events:

- Road accidents
- Air crashes
- Nuclear safety
- Chemical contaminations
- Water and ground water pollution
- ARSENIC AND OTHER POISONINGS
- RADIO ACTIVITY DESEASES

18)Engineering solutions to disasters

- a. Construction solutions
- b. Building codes
- c. Dams
- d. Roads
- e. Fences

19)Computer solutions to disasters

- a. Prediction
- b. Alert systems
- c. Monitoring
- d. GPS

20)Risk and reliability analysis and risk prevention methods

- a. Risk indicator analysis: gender, age, income, etc.
- b. Vulnerability analysis (social and technical)
- c. Acceptable risk criteria
- d. Cultural and social assessment and methods for increasing awareness and vulnerability
- e. Lessons from history

21)Management solutions, political problems and decision making policies

to reduce effects of natural disasters :

- a. human loss
- b. financial loss