



## Summer school CASCARIX

# *Cascading effects and risk management*

### Context and objectives

The combination of several risks and the associated domino effects are the subject of extensive research in engineering sciences, taking into account complex models. The consideration of the social dimensions of the management of these cascading risks is less developed. The challenge is both scientific, to take greater account of multidisciplinary in the combined risk approach, and pragmatic, to manage crisis situations or take appropriate decisions to avoid the occurrence of other events.

The objective of this summer school is to provide an opportunity for doctoral students from the CDP RISK project, as well as doctoral students and researchers from other universities, to exchange their scientific knowledge and experience on cascading phenomena.

- **Date** : September 3-5, 2019
- **Venue** : Escandille Center (Autrans, Vercors massif)
- **Language**: English
- **Registration**:
  - Free registration, transport and accommodation for CDP lecturers and doctoral students
  - Free registration at the summer school for active CDP members but accommodation (depending on available places) and transport at their expense.
  - External participants (non CDP RISK members): 300 euros including accommodation at Autrans



# Program

## ❖ September 3, 2019

**AM: KEY-NOTE SPEAKER**

**9H WELCOME AND INSCRIPTION**

**9H30-9H45 Presentation of CDP Risk. D. Georges**

**9h45-11h30- Professor David Alexander** (Institute for Risk and Disaster Reduction, University College London, UK). *Cascading Disasters: Lessons from the Past, Recent Developments and Prospects*

*At Amphitheater Doyen Gosse at Grenoble INP (rue F. Viallet, Grenoble)*

**Departure by bus** to Autrans at 11:30,

**Lunch** at Escandille

**PM: CASCADING EFFECTS: DIFFERENT APPROACHES (CHAIRMAN D. ALEXANDER )**

14h-15h Giacomo Como (Politecnico di Torino, Italy) *Resilience of dynamical flow networks under cascading failure.*

*Pause*

15h30-16h30 Eric Chatelet (University of Troyes, France). *Domino Effect Analysis: Methods and Tools*

*16h30-17h30 Discussion*

**18h30 Aperitif PHD Posters**

**Dinner** at Escandille



❖ **September 4, 2019**

**AM : PH. D WORKSHOP, BREAK-OUT SESSION**

9h-12h30- Reflexive feedback on CDP Risk thesis topics on *cascading effects and the case of Chambon Tunnel* (led by the PhD Students team and CDP researchers) with local actors (CEREMA, PARN)

**Lunch** at Escandille

**PM : INDUSTRIAL RISK**

14h-15h- François Daniellou (ICSI). *Addressing Safety Culture with all Stakeholders.*

15h-16h- Cecilia De La Garza (EDF). *The simulation of extreme situations for the analysis of resilience and reflections on new forms of preparedness for crisis management*

*Pause*

16h30-17h30- François Giannoccaro (Institut des risques majeurs). *Major risks (natural and technological) and "state" of potential interactions on industrial sites Seveso with high threshold in Rhone-Alps. Return to work-2012 IRMA*

**Dinner** at Escandille



#### ❖ September 5, 2019

#### **AM: ROLES DES ACTEURS D'ENTREPRISE ET DE COLLECTIVITES**

9h-10h00- Serge Peruccio (Vencorex- Chemical Park in Pont de claix). *Evaluation and risk management.*

10h00-11h- Christophe Ferrari (Grenoble Alpes Metropole). *Resilience in Grenoble-Alpes Metropol territories space development*

Pause

11h30-12h30- Jérôme Fauconnier (Political representative of Triève's Community). *Landslide risk management in a rural area near an urban agglomeration: issues and challenges*

**Lunch** at Escandille

#### **PM: INSURANCE / CASE STUDIES**

14h-15h- Roland Nussbaum (Association Mission des Risques Naturels). *How to insure cascading risks?*

15h-16h Pascal Lacroix (ISTerre). *Effect of earthquakes on land movements and communities in the Colca Valley, Peru*

Pause

16h30-17h30 Julien Picard (Training Center Anesthesiology and Critical Care Medicine, Grenoble University Hospital). *Management of critical situations in Health: the place of simulation.*

#### ***Synthesis and perspectives***

**Return by bus** to Grenoble (Railway Station)