

**Program****SEISMOLOGY@SCHOOL  
COURSE PROGRAM**

**Hes-so Valais-Wallis  
Aula François- Xavier Bagnoud  
Sion, 20-24 October 2014**

*MONDAY – October 20, 2014*

**8.15: Registration**

**8.45: Welcome and Introduction**

François Seppey, Director of the Hes-so Valais  
Jean-Marie Cleusix, Director of Education in Wallis  
Stefan Wiemer, Director of the SED

**Session 1: Introduction in Seismology and Geodynamics**

**9.30: Earthquakes and waves**

Prof. Stefan Wiemer, Director of the SED

**10.30: Coffee Break**

**11.00: Evolution of plates tectonic and Seismology**

Prof. Jean-Pierre Burg, ETH Zürich, Switzerland

**12.00: How Earthquakes occur?**

Prof. Jean-Pierre Burg, ETH Zürich, Switzerland

**13.00: Lunch break**

**Session 2: Bringing seismology into the classroom**

**14.00: Seismology@School : Data, picking waves, earthquake localization, tectonic**

Dr. Stefano Solarino, INGV, Italy

**15.00: Hands-on activities for the classroom (Gr. A part I: seismic instruments)**

Dr. Joseph Moerschell, Hes-so, Switzerland

**15.00: Hands-on activities for the classroom (Gr. B part II: modeling earthquake, using data modeling)**

Dr. Jean-Luc Berenguer, CIV Valbonne, France

**16.30: Coffee Break**

**17.00: Hands-on activities for the classroom (Gr. B part I: seismic instruments)**

Dr. Joseph Moerschell, Hes-so, Switzerland

**17.00: Hands-on activities for the classroom (Gr. A part II: modeling earthquake, using data modeling)**

Dr. Jean-Luc Berenguer, CIV Valbonne, France

**18.30: Dinner**

**20.00: "Teachers project" and Web-platform**



**TUESDAY- October 21, 2014**

**Session 3: Observation, measurements and natural hazard**

**9.00: Geodynamics and seismology- Alpine structure**

Prof. ...., ETH Z, Switzerland

**10.30: From site effects to induced phenomena: liquefaction and triggered landslides**

Prof. Donat Fäh, ETH Zürich, Switzerland

**11:30: Coffee Break**

**12.00: Seismic risk in Alpine structure**

Dr. Stefano Solarino, INGV, Italy

**13:00: Lunch break**

**Session 4: Bringing seismology into the classroom**

**14.00: Hands-on activities for the classroom (part III: modeling earthquake, seismic signal processing)**

Dr. Paul Denton, British Geological Survey, UK

**15.15: Teachers projects (part IV: title???????????????? Cf Caroline)**

Caroline, Ian and Gordon, British Geological Survey, UK

**16.30: Coffee Break**

**Open public Conference:  
Aula François- Xavier Bagnoud**

**17.00: François Seppey: CPPS Introduction**

Director of the engineer school: Hes-so Valais -Wallis

**17.30: Jean-Marie Cleusix:CPPS and EPFL campus**

Head of department of Education and Security.

**17.45: Marcel Maurer : EPFL campus and Sion**

President of the City of Sion

**18.00: Sismic risk and Geothermy**

Prof. Domenico Giardini, ETH Zürich, Switzerland

**INVITATION**  
Conférence  
"Seismic risk and geothermal energy"  
Prof. Domenico Giardini  
ETH Zürich  
Mardi 21 Octobre 2014  
17h  
Aula François-Xavier-Bagnoud  
Rte du Rawyl , 1950 Sion

Logos: SED, Hes-so VALAIS WALLIS, NERA, ETH zürich, Seismo at School.

**19.30: Aperitif and dinner**



Trainings Course

WEDNESDAY October 22, 2014

## Session 5: Seismic Risk Mitigation

**8.30: Defeating Earthquakes: How to build?**

Prof. Bozidar Stojadinovic, ETH Zürich, Switzerland

**9.30: Earthquake Early Warning Systems: Challenges and Benefits**

Dr. Gilles Hillel Wust-Bloch, TAV, Israel

**10.30: Coffee Break**

**11.00: Expected Earthquakes and Seismic Risk Mitigation in Palestine**

Prof. Jalal Al Dabbeek, UPDRR, Palestine

**12.00: Community Earthquake preparedness and response for a Kibbutz (Sde Eliahu)**

Dr. Gilles Hillel Wust-Bloch, TAV, Israel

**13.00: Lunch break**

## Session 6: Bringing seismology into the classroom

**14.00: Micro-earthquakes and their applications**

Dr. Marianne Marot, Géo-azur Sophia-Antipolis, France

**15.00: Seismology@School : The European experience, now and future**

Dr. Paul Denton, British Geological Survey, UK

**16.00: Coffee Break**

**16.30: Seismic Tomography using micro-earthquakes : Chilean subduction zone case study**

Dr. Marianne Marot, Géo-Azur, Sophia-Antipolis, France

**17.30: Experiments, posters, made by teachers and/or students**

**18.30: Dinner**

**20.00: "Teachers project" and Web-platform**

THURSDAY October 23, 2014

### Session 7: Seismic Risk Assessment

**9.00: Probabilistic Seismic Hazard and assessment and 2013 European Seismic Hazard Model**

Dr. Jochen Woessner, ETH Zürich, Switzerland

**10.00: Extreme consequences of earthquakes:**

Dr. Arnaud Mignan, ETH Zürich, Switzerland

**11.00: Coffee Break**

**12.00: Earthquake risk in building codes and beyond**

Dr. Blaise Duvernay, BAFU, Switzerland

**13.00: Lunch break**

### Session 8: Teachers' projects

**14.00: Earthquake risk in building codes and beyond**

Dr. Roberto Peruzzi, Bureau d'ingénieurs civils Kurmann & Cretton SA, Switzerland

**15.00: Presentation teachers' projects**

**16.00: Coffee Break**

**17.30: Visit cave of vine in Wallis**

**20.00: Dinner**



FRIDAY October 24, 2014

## Session 9: Field trip

### 9.00: Field trip departure:

**This fieldtrip aims to discuss the structure of the Alps in the area of Sion (Valais, Suisse).**

Special emphasis will be placed on brittle structures such as faults. Several faults can be observed or postulated in the area.

Their history can be long and complex. Some are probably in relation to deposition of sediments during the Mesozoic or Cenozoic others are related to the Alps formation. Some sets could be very young in the Alpine kinematics and are compatible with the present day stress regime.

Consequences of the 1946 Sierre earthquake will be examined.

If weather conditions are good enough, a visit to the "Six des Eaux Froides" rock falls and to the nearby Tseuzier dam site is planned.

Prof. Jean-Luc Epard, University of Lausanne, Switzerland

### 17: Return

### 18.00: Seismology@school network, 'staying in touch'

Dr. Paul Denton, British Geological Survey, UK

### 18.30: Evaluation session and closure

### 19.00 Dinner