

Topical course on

Modeling of fragmentation processes during volcanic eruptions and ash dispersal in turbulent jets

Course Program

Monday, June 15th

09:00 Welcome, introduction to the workshop
11:00 Fractal Geometry basics (lecture)
13:00 Lunch
14:00 Introduction to Matlab (practice)

Tuesday, June 16th

09:00 Visit to the Petro- Volcanology Research Labs @ UNIPG
11:00 Fractal analysis in Matlab (practice)
13:00 Lunch
14:00 Fractal fragmentation during volcanic eruptions and modeling (lecture)

Wednesday, June 17th

09:00 Turbulence Basics (lecture)
11:00 Fractals and turbulence (lecture)
13:00 Lunch
14:00 Turbulent volcanic jet flows (lecture)
15:30 Particle dispersion modeling and clustering (lecture)

Thursday, June 18th

09:00 Flow visualisation of turbulent jet and particle dispersion (practice)
11:00 Assignment of Student projects - Student Work
13:00 Lunch
14:00 Student Work

Friday, June 19th

09:00 Student presentations
13:00 Lunch
14:00 Student presentations

Lecturers:

Diego Perugini

(Petro-Volcanology Research Group

Dept. Physics and Geology @ UNIPG)

Joern Sesterhenn

(Computational Fluid Dynamics Group @ TU Berlin)

Perugia, 15-19 June, 2015

Department of Physics and Geology

University of Perugia (IT)

