



# FLAC Training Course

## ITASCA CONSULTANTS S.A.S.

64 chemin des Mouilles  
F-69134 ECULLY Cedex  
Tel. : 33 (0)4 72 18 04 20  
Fax : 33 (0)4 72 18 04 21

### Day 1:

#### Introduction to *FLAC*

- **General description**
  - The explicit finite difference method
  - Constitutive models
  - Fish
- **Mechanics of using *FLAC* : Tutorial on basic modelling strategy**

### Day 2:

#### Advanced modelling

- **Fluid-Mechanical Interaction**
  - Mathematical Model Description
  - Numerical Fluid Flow Formulation
  - Modelling Approach
- **Fluid-Mechanical Tutorial**
- **Soil/Rock structure Interaction**
  - Typical properties – Structural elements + Interfaces
  - Structural elements – 2D/3D Equivalence
  - Use of elements and of Interface
- **Structure Tutorial**

### Day 3:

- **Dynamic Analysis**
  - Considerations when running dynamic analyses
  - Material models and damping
- **Dynamic Tutorial**
- **Bring one of your specific cases that may be discussed**

# **INTRODUCTORY COURSE**

Course is held at our office in Ecully (nearby Lyon), and lasts 3 days.

Please read carefully all of the course notes below, and do not hesitate to contact us if you have any questions.

- **Class Schedule:** Each course day consists of two 90-minute sessions in the morning and in the afternoon. Courses sessions are as follows:
  - 08:30 AM to 10:00 AM
  - 10:30 AM to 12:00 AM
  - Box lunch catered by Itasca Consultants, S.A.S.
  - 01:30 PM to 03:00 PM
  - 03:30 PM to 05:00 PM
  
- **Materials:** Each participant is encouraged to bring his or her own laptop computer to class (Windows system). Otherwise desktop computers will be available for those with no access to a laptop. Participants are urged to install all Itasca software and help files prior to class.
  
- **Classes are taught by a team of software and consulting professionals.**

Time is evenly separated between lectures and hands-on tutorials.