



RILEM EAC PhD Course Report

Title: Modeling of Localized Inelastic Deformation

Dates: 4-8 September 2023

Venue: Prague, Czechia

1) Brief outline of course topic (photos from course can be included, if available)

Constitutive frameworks for modeling of inelastic behavior, such as plasticity and damage mechanics, as well as techniques for objective description of localized failure based on the crack band approach and on regularized continua (various types of nonlocal and gradient-enhanced models, including phase-field models).

2) Who were the teachers-affiliations?

Milan Jirasek, Czech Technical University in Prague

3) How many students attended (participants) —status (PhD, MSc, industry, etc.)Affiliations?

8 participants attended – mainly PhD students, 2 from the industry.

Represented countries: Germany, The Netherlands, Czechia, Italy, Austria, Poland.

4) Number of Registered and unregistered students.

9 registered, 1 of them could not come

5) Brief review of course scope, course content and lecture schedule.

1. Introduction
2. Plasticity
3. Damage mechanics
4. Localization
5. Integral-type nonlocal models
6. Gradient-enhanced models

Lectures Monday-Friday, morning sessions 9:00-10:15 and 10:45-12:00, afternoon sessions 14:00-15:15 and 15:45-17:00.

6) Financial support received.

Registration fee paid by the participants.

7) Scientific (beyond EAC) Sponsorship.

None.

8) Were Course Evaluations submitted by participants?

No.

9) Evaluation of Learning Outcomes (Grading, etc) ECTS points, if applicable.

10) Is it planned to continue the course in future (i.e. as a course series at regular intervals)?

Yes, every year.

11) How was RILEM presented to participants?

Presentation distributed in course materials, invitation to join RILEM for free as student members.

Name: Milan Jirasek

Date: 11 Sep 2023

This summary report will be published on RILEM website (on the EAC page).

Please send separately the list of student participants (with their contact information) who attended the course to the General Secretariat for a special free membership of 3 years.*