Event fee

The Conference fee is 350€ (early-bird 300€).
The Summer-school fee is 350€ (early-bird 300€).
The conference and summer-school fee is 650€ (early-bird 550€).
The fee includes refreshments during breaks, welcome reception and Conference / Summer school dinner.

Accommodation

We will provide links to accommodation in hotels, student dorms and youth hostels.

Ljubljana - capital of Slovenia

Selected references on open-source effort

- pyEMA: Python package for Experimental and operational modal analysis,
- FLife: Vibration Fatigue by Spectral Methods,
- pyExSi: Excitation signals as used in structural dynamics and vibration fatigue,
- pyFBS: a Python package for Frequency Based Substructuring, TPA, etc.,
- pyIDI: Python Image Displacement Identification.

Event chairs

- Prof. Janko Slavič, PhD
- Prof. Miha Boltežar, PhD

Web page

ladisk.si/OpenSDconference.php

Contact

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www.Ladisk.si

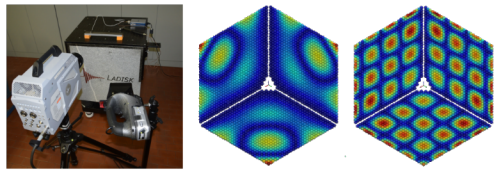
Open-source Scientific Computing in Structural Dynamics

Conference and Summer School

University of Ljubljana
Faculty of Mechanical Engineering

26–28 June, 2023
Ljubljana, Slovenia

OpenSD2023



Preliminary program

We are pleased to announce that the *Open-source Scientific Computing in Structural Dynamics Conference and Summer School* will be held in June 2023.

This conference and summer school is started to promote and accelerate open-source-based research in the field of structural dynamics.

Single-track presentations of open-source effort related to structural dynamics are planned for the first two days (Monday and Tuesday). While the Summer school will focus on open-source effort related to the Python programming language, other programming languages (e.g., Matlab) are also welcome for the conference presentations.

Topics of the conference:

- Mathematical Modeling
- Experimental Techniques
- Computational Methods
- Nonlinear and Stochastic Dynamics
- Structural Dynamics
- Acoustics
- Fluid-Structure Interactions
- Identification and Modal Analysis
- Dynamics of Rotating Systems
- Structural Health Monitoring
- Vibration Control and Isolation

The summer school will accept up to 20 attendees per track (first-come, first-serve basis).

CONFERENCE

Monday, day 1 Single-track presentations.
Welcome reception.

Tuesday, day 2, morning Single-track presentations.

SUMMER SCHOOL

Tuesday, day 2, afternoon: Introduction to Python & numerical methods Intro to Python, systems of linear equations, interpolation, approximation, nonlinear equations, differentiation, integration, differential equations. *2h of lectures, 3h of hands-on work.*

Conference and Summer school dinner.

Wednesday, day 3, morning: Signal processing Basics of signal processing within the Python ecosystem. *2h of lectures, 2h of hands-on work.*

Wednesday, day 3, track 1: Collaboration on open source projects

Repositories, Github, package preparation, testing, continuous integration, package distribution. *2h of lectures, 3h of hands-on work.*

Wednesday, day 3, track 2: Image based modal analysis Fundamentals of experimental modal analysis in the Python ecosystem, image-based modal identification. *2h of lectures, 3h of hands-on work (1h in the experimental lab).*

Wednesday, day 3, track 3: Frequency based substructuring, transfer path analysis (organised jointly with TUM) This track will focus on the pyFBS package. Basic and application examples will also be provided with the package, along with real datasets so you can try out the capabilities directly. *2h of lectures, 3h of hands-on work.*

Target audience

The target audience is PhD or MSc students working in the field of structural dynamics.

What to expect

At the conference, you can expect to learn about recent efforts in the development of particular open-source packages related to scientific research in structural dynamics.
At the summer school, we will help you understand how the open-source community operates and how to write open-source code so that it can be used by other researchers. Summer school attendees will receive the full source code of the courses.
Three tracks are planned (see preliminary program).

Attendees have the option to obtain 3 ECTS.

Prior knowledge

The summer school will be based on the Python programming language. Basic knowledge of Python is assumed, but Matlab users should be able to catch up quickly.

Important dates

- Mar 10th 2023: deadline for abstract submission.
- Mar 15th 2023: acceptance notification.
- Apr 15th 2023: deadline for extended abstract or full paper submission.
- Apr 15th 2023: early-bird registration closed.
- May 25th 2023: registration closed.
- June 26th 2023: start of the conference & summer school.

Conference paper submission

To present your work at the OpenSD conference, first submit a 200-250 word abstract through our web page. The final conference contributions are expected in the form of 2-4 page extended abstracts, formatted using the provided LaTeX or MS Word template.