

# **Numerical methods for fluid, structure and interactions problems**

## **Report of Contributions**

Contribution ID: 1

Type: **not specified**

## **Talk: Isogeometric Analysis on Volume Representations**

**Presenter:** Mr ANTOLIN, Pablo (EPFL Lausanne)

Contribution ID: 2

Type: **not specified**

## **Talk: Real-time structural damage tracking and monitoring from advanced measurement techniques and digital twins**

*Tuesday, November 15, 2022 9:30 AM (45 minutes)*

**Presenter:** CHAMOIN, Ludovic (ludovic.chamoin@ens-paris-saclay.fr)

Contribution ID: 3

Type: **not specified**

## **Talk: phi-FEM: an optimally convergent fictitious domain method and its applications to flows around moving rigid particles**

*Tuesday, November 15, 2022 10:15 AM (45 minutes)*

**Presenter:** LOZINSKY, Alexei (LmB, Besançon)

Contribution ID: 5

Type: **not specified**

## **Talk: Nitsche's method in structural mechanics. Consideration of contact and friction.**

*Tuesday, November 15, 2022 2:00 PM (45 minutes)*

**Presenter:** LLERAS, Vanessa (IMAG, Montpellier)

Contribution ID: 6

Type: **not specified**

## **Practical session: Modeling of coupled problems by a language based on weak forms. Principles and examples.**

*Tuesday, November 15, 2022 2:45 PM (1h 30m)*

**Presenter:** RENARD, Yves (Institut Camille Jordan, Lyon)

Contribution ID: 7

Type: **not specified**

## **Talk: Some models and numerical simulations of bio-fluids flows**

*Wednesday, November 16, 2022 9:00 AM (45 minutes)*

**Presenter:** SALMON, Stéphanie (LMR, Reims)

Contribution ID: 8

Type: **not specified**

## **Talk: Appropriate mathematical models and efficient numerical methods for the simulation of ocular fluids**

*Wednesday, November 16, 2022 9:45 AM (45 minutes)*

**Presenter:** SZOPOS, Marcela (MAP5, Paris)



Contribution ID: 9

Type: **not specified**

## **Talk: Quelques modèles numériques pour l'interaction multi-matériaux en régime compressible ou incompressible**

**Presenter:** ANGELLO, Iollo (INRIA, Bordeaux)

Contribution ID: **10**

Type: **not specified**

## **Talk: A new perspective on time-stepping schemes: Beyond strong stability**

**Presenter:** ERN, Alexander (CERMICS, Paris)

Contribution ID: 11

Type: **not specified**

## **Talk: Simulations numériques des écoulements fluide - particules**

**Presenter:** CLIMENT, Eric (IMFT Toulouse)

Contribution ID: 12

Type: **not specified**

## **Talk: Numerical methods for fluid-structure interaction with immersed thin-walled solids**

*Thursday, November 17, 2022 11:15 AM (45 minutes)*

**Presenter:** FERNANDEZ, Miguel ([miguel.fernandez@inria.fr](mailto:miguel.fernandez@inria.fr))

Contribution ID: 13

Type: **not specified**

## **Talk: Robin-type loose coupling for FSI**

*Thursday, November 17, 2022 2:00 PM (45 minutes)*

**Presenter:** BURMAN, Erik (UCL, Londres)

Contribution ID: 14

Type: **not specified**

## **Practical session: Comparison of different approaches for immersed FSI with thin-walled solids**

*Thursday, November 17, 2022 2:45 PM (1h 30m)*

**Presenter:** DELAY, Guillaume (LJLL, Paris)

Contribution ID: 15

Type: **not specified**

## **Talk: Parallel multilevel methods for the solution of PDE problems**

*Friday, November 18, 2022 9:30 AM (45 minutes)*

**Presenter:** VASSEUR, Xavier (IRIT, Toulouse)

Contribution ID: 16

Type: **not specified**

## **Practical session: Parallel multilevel methods for the solution of PDE problems**

*Friday, November 18, 2022 10:15 AM (1h 30m)*

**Presenter:** JOLIVET, Pierre (IRIT, Toulouse)



Contribution ID: 17

Type: **not specified**

## **Talk: Morphing of wings**

**Presenter:** Mr HOARAU, Yannick (Icube, Strasbourg)

Contribution ID: **18**

Type: **not specified**

**Talk:**

Contribution ID: 19

Type: **not specified**

## **Talk: Some numerical models for multi-material interaction in compressible or incompressible regime**

*Thursday, November 17, 2022 9:30 AM (45 minutes)*

**Presenter:** ANGELLO, Iollo (INRIA, Bordeaux)

Contribution ID: 20

Type: **not specified**

## **Talk: A new perspective on time-stepping schemes: Beyond strong stability**

*Wednesday, November 16, 2022 10:45 AM (45 minutes)*

**Presenter:** ERN, Alexander (CERMICS, Paris)

Contribution ID: 21

Type: **not specified**

## **Talk: Isogeometric Analysis on Volume Representations**

**Presenter:** ANTOLIN, Pablo (EPFL Lausanne)

Contribution ID: 22

Type: **not specified**

## **Talk: Numerical simulations of fluid-particle flow**

*Wednesday, November 16, 2022 11:30 AM (45 minutes)*

**Presenter:** CLIMENT, Eric (IMFT Toulouse)

Contribution ID: 23

Type: **not specified**

## **Talk: Morphing of wings**

*Thursday, November 17, 2022 10:15 AM (45 minutes)*

**Presenter:** HOARAU, Yannick (Icube, Strasbourg)

Contribution ID: 24

Type: **not specified**

## **Numerical analysis of elastoplastic torsion problem.**

*Tuesday, November 15, 2022 11:15 AM (45 minutes)*

**Presenter:** HILD, Patrick (IMT (Toulouse))