



Open course "Contact Mechanics and Elements of Tribology"

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February 24-27, 2026

Hybrid mode: @Centre des matériaux, Versailles, France and in Zoom

Tuesday, February 24

- 9h00 – 10h30 **Lecture:** Mechanical Contact
- 10h45 – 12h15 **Practice:** Integration of Flamant solution and elastic indentation
- 13h30 - 15h00 **Lecture:** Contact and Mechanics of Materials
- 15h15 – 16h45 **Practice:** Viscoelastic indentation

Wednesday, February 25

- 9h00 – 10h30 **Lecture:** Surface roughness
- 10h45 – 12h15 **Practice:** Characterisation of rough surfaces
- 13h30 - 15h00 **Lecture:** Physics of Rough Contact
- 15h15 – 16h45 **Practice:** Solving rough contact problem in Tamaas code

Thursday, February 26

- 9h00 – 10h30 **Lecture:** Computational Contact Mechanics: Finite Element Method
- 10h45 – 12h15 **Practice:** Coding your contact element in a toy-FEM code
- 13h30 - 15h00 **Lecture:** Friction and adhesion
- 15h15 – 16h45 **Practice:** Study a stress field induced by a frictional sliding

Friday, February 27

- 9h00 – 10h30 **Lecture:** Lubrication and sealing
- 10h45 – 12h15 **Practice:** Solving Reynolds equation by the finite difference method
- 13h30 - 16h00 Written exam
- 16h00 – 16h15 Concluding remarks