

# EPFL Practical matters – Schedule (version 09.2024)

| Week | Day   | Theory                                                                                  |  |              |
|------|-------|-----------------------------------------------------------------------------------------|--|--------------|
| 1    | 10.09 | Introduction; Scaling laws, Fabrication*                                                |  |              |
| 2    | 17.09 | Transduction of the motion – Techniques                                                 |  |              |
| 3    | 24.09 | Transduction of the motion – Techniques                                                 |  | Paper (1)    |
| 4    | 01.10 |                                                                                         |  | Paper (1)    |
| 5    | 08.10 | Static deflection – Force, Linear behavior, Intro noise                                 |  |              |
| 6    | 15.10 |                                                                                         |  | Paper (2)    |
| 7    | 29.10 | Station deflection – Stress                                                             |  | Paper (3)    |
| 8    | 05.11 | Dynamic behavior – Linear Analysis<br>Dynamic behavior – Stress influence on frequency  |  |              |
| 9    | 12.11 | Dynamic behavior – Mode coupling<br>Dynamic behavior – Nonlinearities, Parametric drive |  |              |
| 10   | 19.11 |                                                                                         |  | Paper (4)    |
| 11   | 26.11 | Material properties – Size effects                                                      |  | Paper (5)    |
| 12   | 03.12 | Quality factor – Energy losses                                                          |  | Paper (6)    |
| 13   | 10.12 | Thermomechanical noise, Detection schemes                                               |  | Paper (7)    |
| 14   | 17.12 |                                                                                         |  | Paper (8, 9) |