PDE II seminar, Spring 2024 (updated May 14th, 2024)

(1) *Manifolds, Vectors* (Sections 2.1, 2.2)
Georg Schöckle
7. Mai

(2) *Tensors, the metric tensor* (Section 2.3)
Max Dalitz
7. Mai

(3) *Curvature* (Sections 3.1 and 3.2)
Alok Pellissery
14. Mai

(4) *Special Relativity* (Sections 1.2, 4.1, 4.2)
Oskar Godon
14. Mai

(5) *Special Relativity* (Sections 1.2, 4.1, 4.2)
Aaron Thede
21. Mai

(6) *General Relativity* (Section 4.3)
Rahul Biju
21. Mai

(7) *Spacelike initial data, Lichnerowicz' conformal method* (p. 252-260, p. 265)
Erik Löffelholz
28. Mai

(8) *Initial value problem of GR: Local existence* (p. 260-264)
Fatin Nofal
28. Mai

(9) *Linearized gravity* (Section 4.4)
Camilla Adams
4. Juni

(10) *Derivation of the Schwarzschild solution* (Section 6.1)
Nele Garay
4. Juni

(11) *Geodesics of Schwarzschild* (Sections 3.1 and 6.3)
Kira Engelhardt
11. Juni

(12) *Characteristic gluing problem for the scalar wave equation* (https://arxiv.org/abs/1310.1365)
Johannes Ewald
11. Juni

(13) *Penrose incompleteness theorem* (Aretakis' lecture notes)
Prabha Shankar
18. Juni

(14) *The Kerr metric* (Section 12.3)
Ben Duyster
18. Juni

The sections and pages above refer to Wald's book *General Relativity* (University of Chicago press). It is strongly recommended to be present at all talks.