

# Syllabus: Differential Geometry Reading Course II

The idea of this reading course is to create a solid understanding of Differential Geometry.

- **Calendar:** Starting second week of January
- **Time/place:** Tuesday 1pm (Board Room) and Thursday 1:30pm (326)
- **Methodology:** We meet twice a week and each meeting is separated in two parts: summary of the readings and problem solving. Two different people lead each part, following the schedule bellow. The person who discusses the readings that everyone has to do for a given meeting mostly summarizes the important points and problems of the sections. He does not necessarily give a detailed talk based on the book. The other part consists of someone solving his favorite problems from the readings of the previous meetings. We solve problems in a delayed manner to leave time for people to do them after having discussed the material. The problem solver of a given meeting tells the group at least two days in advance which of the problems he will solve.
- **Bibliography:**
  - "The Geometry of Physics", 3rd Edition, Theodore Frankel (PDF online)
  - "A comprehensive introduction to differential geometry", vol. 1, 3rd edition, Michael Spivak (PDF online)

• (tentative) schedule:

Name	Date	Content
Siggi	jan 17	9.1-9.3
Kays (ex) / Yan	jan 19	9.4 and 9.5
Jake (ex) / Kale	jan 24	9.6 and 9.7
Ioannis (ex) / L-A	jan 26	10.1 and 10.2
Siggi (ex) / Guilherme	fev 2	10.3 and 11.1
Yan (ex) / Jake	fev 7 (no room!)	11.2 and 11.3
Kale (ex) / Ioannis	fev 9	11.4 and 11.5
L-A (ex) / Siggi	fev 14	12
Guilherme (ex) / Yan	fev 16	13.1
Jake (ex) / Kale	fev 21	13.2 and 13.3
Ioannis (ex) / L-A	fev 23	13.4 and 14.1
Siggi (ex) / Guilherme	fev 28	14.2
Yan (ex) / Jake	mar 2	14.3
Kale (ex) / Ioannis	mar 7	15.1 and 15.2
L-A (ex) / Siggi	mar 9	15.3 and 15.4
Guilherme (ex) / Yan	mar 14	16.1 and 16.2
Jake (ex) / Kale	mar 16	16.3
Ioannis (ex) / L-A	mar 21	16.4
Siggi (ex) / Guilherme	mar 23	17.1 and 17.2
Yan (ex) / Jake	mar 28	17.3 and 17.4
Kale (ex) / Ioannis	mar 30	18.1
Jake (ex) / Siggi	apr 4	18.2 and 18.3
L-A (ex) / Yan	apr 6	19.1 and 19.2
Kale (ex) / Ioannis	apr 11	19.3 and 19.4
Siggi (ex) / L-A	apr 13	19.5 and 20.1
Yan (ex) / Jake	apr 18	20.2, 20.3 and 20.4
Kale (ex) / Siggi	apr 20	20.5 and 20.6
L-A (ex) / Yan	apr 25	21.1
Jake (ex) / Kale	apr 28	21.2 and 21.3 (instead of problems)
Siggi (ex) / L-A	May 2	21.4 (with the problems) and 22.1
Yan (ex) / Jake	May 5	22.2 and 22.3
Kale (ex) / Siggi	May 9	22.4 and 22.5