

# Analysis III

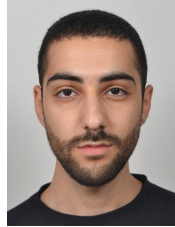
MATH - 202(c)

Pablo Antolin

09/09/2024

# EPFL Presentations

- Lecturer: Pablo Antolin
- Main TA: Ferhat Sindy



- 16 AEs for exercise sessions  
+ 1 AE for Ed Discussion

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# EPFL Course organization

On Tuesdays:

- Theory lecture: 08h15 to 10h00 in **STCC Cloud C** recorded and broadcasted in [mediaspace.epfl.ch](https://mediaspace.epfl.ch) (check Moodle for details).
- Exercise session: 10h15 to 12h10 in  
Please, check your room on Moodle!!

On Thursdays:

- Theory lecture: 12h15 to 13h00 in **STCC Cloud C** recorded and broadcasted in [mediaspace.epfl.ch](https://mediaspace.epfl.ch) (check Moodle for details).
- Office hours: Tuesdays 13h45 - 15h00 (upon request).

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STCC will be unavailable on:

- Week 2: Tuesday (Sep 16th)
- Week 4: Thursday (Oct 2nd)
- Week 5: Tuesday and Thursday (Oct 7th and 9th)
- Week 7: Tuesday and Thursday (Oct 28th and 30th)

There will be a Q&A session on  
Thursday October 9th at PO 01 (Polydôme)

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# EPFL Tentative schedule

- **Week 1:** course intro and 1 differential operators
- **Week 2:** 2.1 curves, 2.2 curvilinear integrals, 2.3 conservative fields
- **Week 3:** 2.3 conservative fields
- **Week 4:** 2.4 Green's theorem
- **Week 5:** 3.1 surfaces, 3.2 surface integrals
- **Week 6:** 3.2 surface integrals, 3.3 divergence theorem

**BREAK WEEK**

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# EPFL Tentative schedule

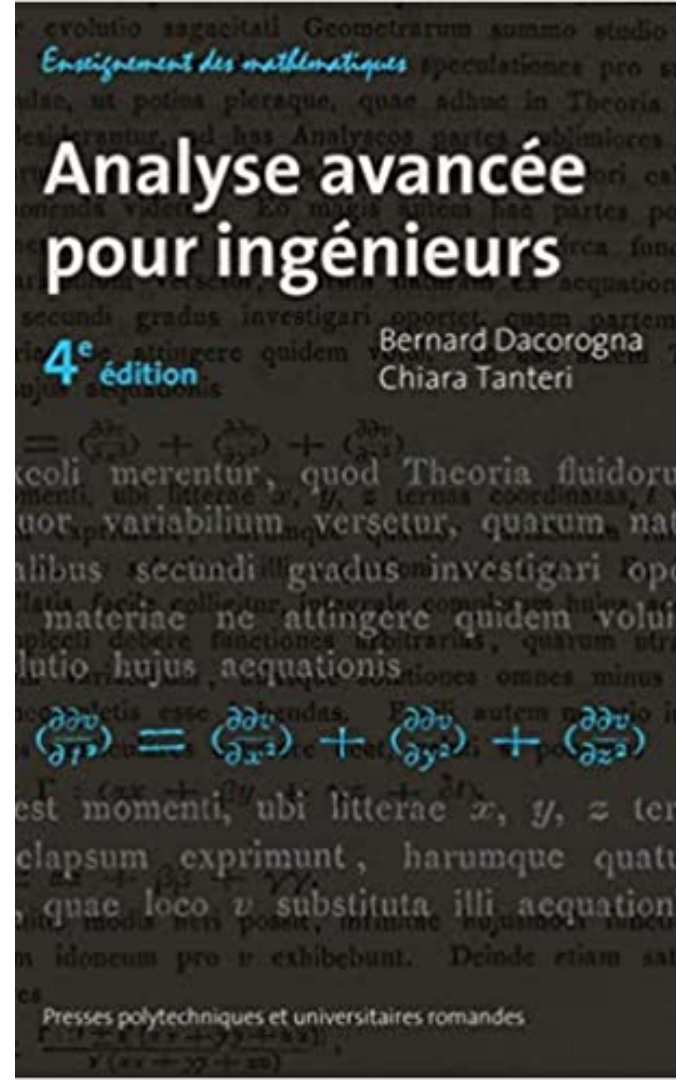
- **Week 7** (online): 3.3 divergence theorem, 3.4 Stokes' theorem
- **Week 8**: 4.2 Distributions
- **Week 9**: 4.2 Fourier series, 4.3 series of a periodic function
- **Week 10**: 4.3 series of a periodic function
- **Week 11**: 4.3 series of a periodic function, 4.4 properties of Fourier series (Parseval), 4.5 other Fourier formulations
- **Week 12**: 5.1-5.2 Fourier transformation, 5.3 properties of Fourier transformation
- **Week 13**: Applications of Fourier to ODEs
- **Week 14**: Applications of Fourier to PDEs & recap

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# EPFL Course book

- Course follows (not 100%) this book.
- You can find it:
  - Free online version (Moodle link)  
(use VPN connection from home)
  - EPFL library
  - Rolex Learning Center bookshop

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**ON MOODLE**



# EPFL Exercise series

- Related to theory studied in previous weeks.
- Published on Thursday before (solutions on Friday after).
- Most of the exercises are taken from the course book.
- Some exercises maybe not in book.
- Solutions will be provided.

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- In Moodle you will find:
  - Links to lectures recordings and broadcasting
  - Weekly series (and solutions)
  - Weekly iPad notes of the lectures
  - Polycopie
  - Ed forum

- Written exam.
- It will have a MCQ (and/or True/False) part and an open part.
- Questions similar to the ones in the Series and some questions of understanding.
- Similar exams will be provided.
- **No proofs asked.**
- Fourier transformations table provided (see § 15.5, page 245 du livre Analyse avancée pour ingénieurs par Dacorogna Tanteri).
- You can bring a *formulaire*: one single A4 page recto verso.
- You cannot use calculators or other type of electronic machines.
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- Constructive feedback is very welcome at any time.
- ISA indicative feedback
- Delegates, please, get in contact with me

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# WELCOME TO THE SWISSTECH CONVENTION CENTER

THIS COURSE IS BEING HELD IN A PRIVATE BUILDING. ONLY USE THE ENTRANCE AND FACILITIES CLEARLY INDICATED «COURS EPFL»

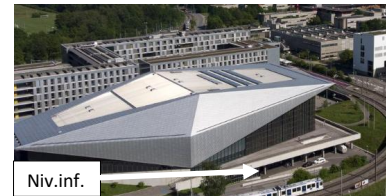
PLEASE DO NOT EAT OR DRINK IN THE AUDITORIUM – DON'T LEAVE YOUR WASTE

DON'T FORGET TO TAKE ALL YOUR BELONGINGS

SHOULD YOU FORGET SOMETHING, NOTE THAT THE «LOST & FOUND» IS LOCATED AT THE ENTRANCE OF THE AUDITORIUM

THANK YOU FOR YOUR COOPERATION !

Arcades : Entrée par l'Esplanade  
 Garden : Entrée par le niveau inférieur



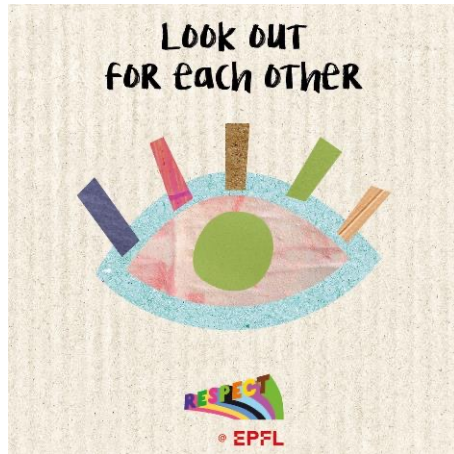
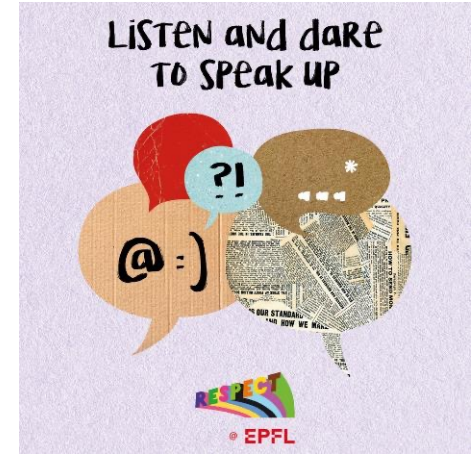
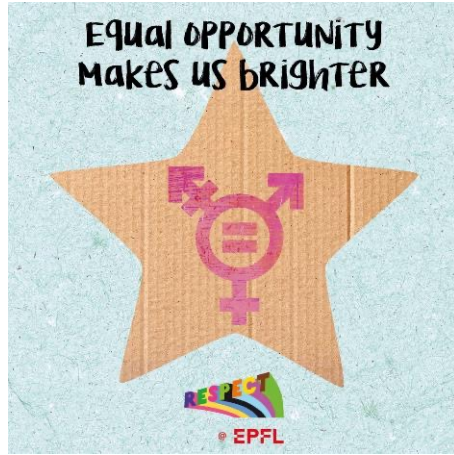
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Arcades	Garden	Arcades	Arcades	Arcades	Garden	Garden	Arcades	Garden	Garden	Garden	Arcades	Arcades

13.10.25	14.10.25	15.10.25	16.10.25	17.10.25	27.10.25
Arcades	Arcades	Arcades	Arcades	Arcades	Arcades

04.11.25	05.11.25	06.11.25	07.11.25	10.11.25	11.11.25	12.11.25	13.11.25	14.11.25	17.11.25	18.11.25	19.11.25	20.11.25
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21.11.25	24.11.25	25.11.25	26.11.25	27.11.25	28.11.25
Arcades	Garden	Arcades	Garden	Garden	Garden

01.12.25	02.12.25	03.12.25	04.12.25	05.12.25	08.12.25	09.12.25	10.12.25	11.12.25	12.12.25	15.12.25	16.12.25	17.12.25	18.12.25	19.12.25
Arcades	Arcades	Arcades	Arcades	Arcades	Garden	Garden	Arcades	Arcades	Arcades	Arcades	Arcades	Arcades	Arcades	Arcades



**Welcome!**