

Introduction to Intelligent Signal Processing (Lab Python)



Danilo Greco

Topics

1. Introduction: interactive notebook and lessons -> Jupiter Notebook.
2. Installation SW environment and Python.
3. Relevant libraries: Numpy, Matplotlib, Pandas, **Scipy**.
4. Exercises and examples.
5. Google Colab.
6. Acoustic Beamforming (acoustic antenna) and Time Difference of Arrival (TDA) (theory)

Timetable and course organization first option

MAY 2023

SUN	MON	TUE	WED	THU	FRI	SAT
30	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	1	2	3

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JUNE 2023

SUN	MON	TUE	WED	THU	FRI	SAT
28	29	30	31	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	1

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Timetable and course organization second option

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Who's this guy?



Dipartimento di
Scienze Economiche, Giuridiche,
Informatiche e Motorie

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RUBRICA



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Ricercatore A Tempo Determinato

Afferenza
[Dipartimento di Scienze Economiche, Giuridiche, Informatiche e Motorie](#)

Area settore scientifico disciplinare
Scienze matematiche e informatiche

Settore scientifico disciplinare
Informatica (INF/01)

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My “farfield”

- MSc Medical Physics (1990 – 1996) (Unige)
- Research scientist MRI R&D (Esaote) (1998–2002) SW developer in clinical imaging and pulse sequences for MRI
- Marketing Application Specialist MRI (2002–2004)
- Marketing Clinical Manager MRI (2004–2007)
- Team leader R&D (2007 – 2014) (Sequence Design MRI Group) (MRI sequences, acquisition techniques, reconstruction & post processing algorithms).
- Advanced research Ultrasound.

Patents (2), papers (3) and posters (14).

ECR (European Congress of Radiology),

ISMRM (International Society for Magnetic Resonance in Medicine)

My “nearfield”

- Master in Technology Transfer, Innovation, entrepreneurship in high-tech (2012 – 2014) (Unige, “working student”)
- Technology Transfer Manager @ CNR Istituto Fisica Applicata Nello Carrara (Sesto Fiorentino, Florence) (2014 – 2015)
- Expert in Innovation and Business Development (Tuscany H2020 project on SME Instrument) (IRPET Istituto Regionale Programmazione Economica Toscana) (2014 – 2016)
- Advanced Scientific Research (Esaote) (2016 – 2018) Ultrasound
- PhD in Electronic and Telecommunication Engineer (2017 – 2020) (Unige, “working student”)
- Teacher PhD School Dibris Unige. Course (6 cfu): Research Oriented Structural and Functional Neuroimaging (A.Inuggi, D.Greco).
- IIT RBCS Fellow Senior 2018 - 2019
- IIT PAVIS Visiting Scientist 2019 – 2020
- Temporary Teacher Informatics and Electronics 2019 – 2020
- Temporary Teacher in System Automation 2020 - 2021
- Full Teacher in Mathematics (STEM 2021)
- Unige – Dibris (Departement of Informatics, Biorngineering, Robotics and System Engineering) – Scientific Collaborator (Signal Processing and ML)
- Uniparthenope – RTD-A – DiSEGIM (Department of Economics, Law, Cybersecurity, and Sports Sciences) Nola

Your turn....