



2025 Wuhan University Luojia Global Summer School 2025 International GeoInformatics Summer School

SSI: Artificial Intelligence and Machine Learning Instructors: Prof. Dr. Marcello Pelillo, Ca'Foscari University of Venice, Italy

SSII: Introduction to AI-guided SAR Data Science Instructor: Prof. Dr.-Ing. Timo Balz,
Wuhan University, China

Organizer

State Key Lab of Information Engineering in Surveying,
Mapping and Remote Sensing (LIESMARS), Wuhan University

Co-organizers

Hi-Target Satellite Navigation Technology Co., Ltd Geo-spatial Information Science (GSIS) IEEE GRSS Wuhan University Student Branch Chapter



Scan for details and application

July 1st -8th, 2025
LIESMARS, Wuhan, China
igsswhu@whu.edu.cn
Application before June 2nd, 2025 (Outside China)
June 23rd, 2025 (In China)

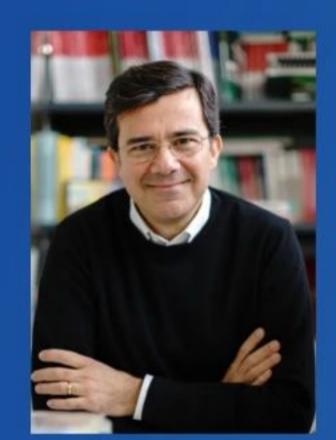






Artificial Intelligence and Machine Learning

Instructor: Prof. Dr. Marcello Pelillo, Ca' Foscari University of Venice, Italy



Marcello Pelillo is a Professor at Ca' Foscari University of Venice, where he leads the Computer Vision and Machine Learning Lab. He has been the Director of the European Centre for Living Technology (ECLT). He is an external affiliate of the Computer Science Department at Drexel University (USA) and of the Italian Institute of

Technology. He has published more than 200 technical papers in refereed journals, handbooks, and conference proceedings. He has been General Chair for ICCV 2017, Program Chair for ICPR 2020. He is the Chief Editor of Frontiers in Computer Science – Computer Vision. He is also a Fellow of the IEEE, the IAPR, and the AAIA, and is an IEEE SMC Distinguished Lecturer.

Research Fields: Computer vision, machine learning and pattern recognition

Lectures #	TOPICS	
Lecture 1	Introduction to AI and machine learning	
Lecture 2	Neural networks and deep learning	
Lecture 3	Neural networks and deep learning	
Lecture 4	Clustering	
Lecture 5	Selected computer vision applications	
Lecture 6	Selected computer vision applications	
Lecture 7	Group Project Presentations	



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Introduction to AI-guided SAR Data Science

Instructor: Prof. Dr.-Ing. Timo Balz, Wuhan University, China



Timo Balz received the Diploma degree (Dipl.-Geogr.) in aerospace engineering and geodesy from the University Stuttgart, Stuttgart, in 2001 and 2007, respectively. Since 2015 he is Full Professor with LIESMARS. Since 2021, he is Vice-Director of the International Academy of GeoInformation, Wuhan University. He serves as Associate Editor for the IEEE Geoscience and Remote Sensing

Magazine and MDPI's Remote Sensing. He is a member of the editorial board of Geo-Spatial Information Science and the Journal of Digital Earth. Since 2016, he has been Chair of an ISPRS Commission I Working Group on SAR from 2016–2022 and again from 2022–2026. He has authored and coauthored more than 150 scientific articles in journals, books, and conference proceedings.

Research Fields: Surface motion estimation with SAR, data visualization, SAR geodesy, and the use of SAR data to support archaeological prospections.

Lectures #	TOPICS	
Lecture 1	Introduction to Synthetic Aperture Radar (SAR), Large Language Models (LLM), and Python	
Lecture 2	SAR image processing with assistance from DeepSeek	
Lecture 3	Developing SAR simulation as a basis for SAR image understanding	
Lecture 4	SAR interferometry—Theory and code examples	
Lecture 5	Developing Permanent Scatterer Interferometry from scratch	
Lecture 6	Data analysis, visualization, and understanding	
Lecture 7	Group Project Presentations	