UNIVERSITÀ DI PARMA
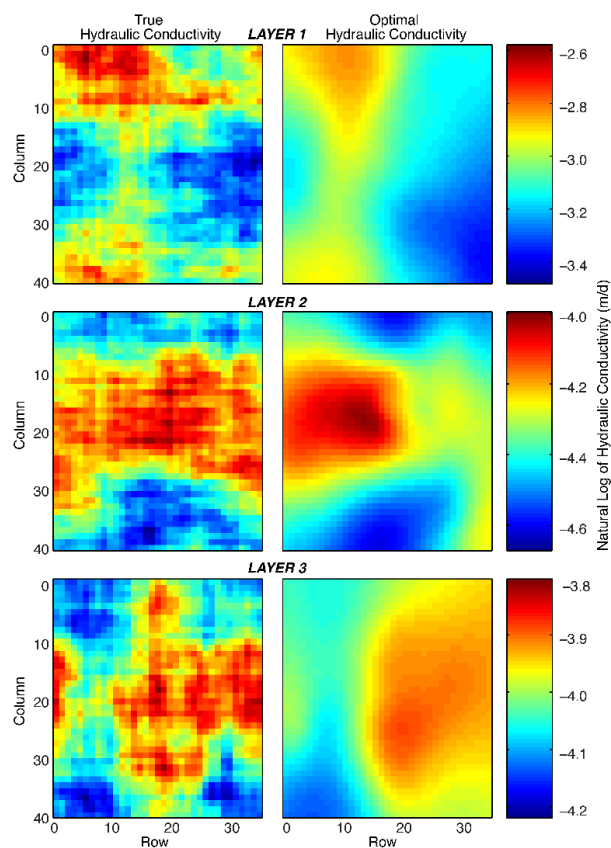
Department of Engineering and Architecture

Short Course

Introduction to Geostatistics

23-24 May and 27-30 May, 2019

Final Program and Logistical Information

Introduction to Geostatistics – University of Parma

Final Program with room indication

Day 1 – Thursday 23/05/2019 – Module 1 – Room: Aula D at Podere La Grande

10:00 – 12:00	Introduction. Recall of univariate and bivariate statistics. The need of spatial statistics. Characterization of spatial continuity. The variogram. Variogram models.
13:00 – 16:00	

Day 2 – Friday 24/05/2019 – Module 1 – Room: Aula D at Podere La Grande

10:00 – 12:00	Introduction to SGeMS. Practical exercise on basic statistics calculation and variogram modeling.
13:00 – 16:00	

Day 3 – Monday 27/05/2019 – Module 2 - Room: Aula Master at S. Elisabetta Conference Center

10:00 – 12:00	Modeling spatial continuity. The random function model. Stationarity and ergodicity. The multiGaussian random function model.
13:00 – 16:00	

Day 4 – Tuesday 28/05/2019 – Module 2 - Room: Aula Master at S. Elisabetta Conference Cent.

10:00 – 12:00	Estimation. Ordinary kriging. Other flavors of kriging. Estimation exercise.
13:00 – 16:00	

Day 5 – Wednesday 29/05/2019 – Module 2 - Room: Aula Master at S. Elisabetta Conf. Cent.

10:00 – 12:00	Modeling local uncertainty. MultiGaussian kriging. Indicator kriging. Modeling global uncertainty.
13:00 – 16:00	

Day 6 – Thursday 30/05/2019 – Module 2 - Room: Aula Master at S. Elisabetta Conf. Cent.

10:00 – 12:00	Stochastic simulation. Sampling from a random function model.
13:00 – 16:00	Sequential simulation. Simulation exercise.

Contact person

Prof. Maria Giovanna Tanda

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Attendee requirements

Course attendees are required to bring **their own laptop** for the practical exercises.

Course Lecturer

Prof. J. Jaime Gómez-Hernández (Universitat Politècnica de València)

Logistical Information

The course will take place at the [Campus of the University of Parma](#)

Address: Parco Area delle Scienze, 43124, Parma, PR

Venue:
Module 1 – Room: [Aula D – Podere La Grande](#) (Figure 1, Figure 3)
Module 2 – Room: Aula Master – [S. Elisabetta Conference Center](#) (Figure 2, Figure 3)

[See also this interactive map](#)

Lunch options: different alternatives are available for lunch inside the Campus: 3 canteens and 2 bars. More information will be provided onsite. You can also bring your own meal.

Where to stay: different hotels, B&B and Airbnb options are available throughout the city. We advise to stay close to downtown and then reach daily the Campus to attend the course. More information [here](#).

Figure 1. Aula D – Podere La Grande

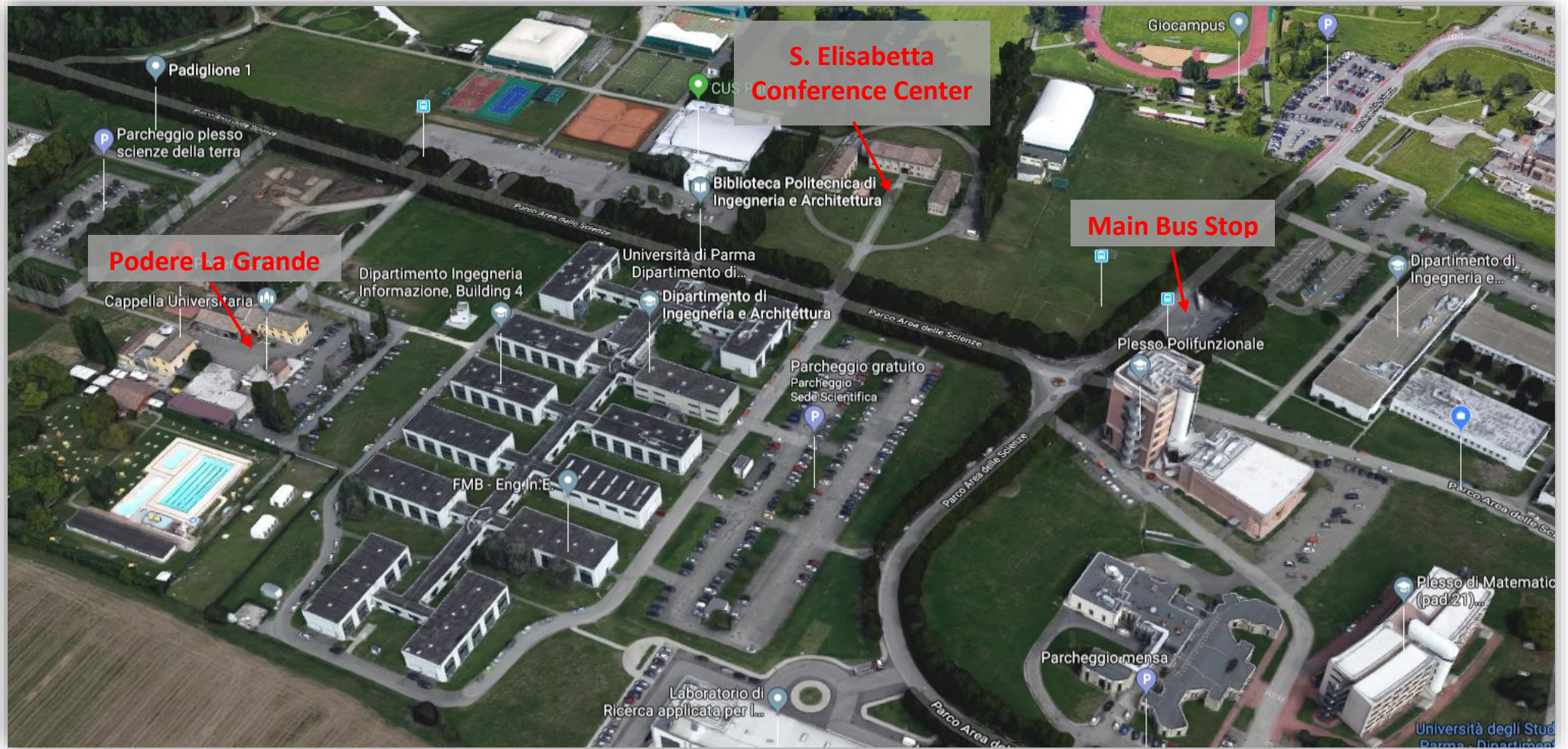*Figure 2. S. Elisabetta Conference Center*

Campus of the University of Parma

Figure 3. Aerial view of the Campus of the University of Parma

How to reach the Campus

By bus
Take one of the following buses:
Line 7 from Railway station, downtown Parma or other stops (check maps and timetable at this link).
Line 21 from Railway station downtown Parma or other stops (check maps and timetable at this link).
Get off at the Ingegneria stop (Main Bus Stop, Figure 3); third stop inside the Campus.

By taxi
You can take a taxi at the Railway station or the other designated areas within the city or call the number +39 0521 252562

By car
Follow directions to Langhirano (exit 15 of the Parma ring road, named "tangenziale"). Follow the exit with direction "Università", passing about a cinema and a mall.
The address is Parco Area delle Scienze, 43124 Parma

How to reach Parma

By plane
From the "Giuseppe Verdi" airport, only 5 km away from the heart of the city, downtown can be easily reached by taxi, rental cars or by bus n. 6. Unfortunately, only very few flights reach Parma directly.
More likely landing airports are Milan "Malpensa", Milan "Linate", Milan "Orio al Serio" (located in Bergamo, hub for many low-cost airlines) and Bologna "G. Marconi" (advised). All these airports provide shuttle bus or train services to the corresponding central stations in Milan or Bologna.

By train
Train connections to Parma from "Bologna Centrale" and "Milano Centrale" are very frequent and run from the very early morning to around 11 pm. Travel times are from 45 minutes (Trenitalia Frecciabianca trains) to 70 minutes (very cheap regional trains) to/from Bologna and from 55 to 80 minutes to/from Milan.
Tickets can be bought at vending machines, ticket booths inside the stations or on-line. Train time-table can be found at this link (regional and high-speed connections by Trenitalia).
Parma railway station is in the northern portion of the city, 10 minutes walk from the city center and at walking distance (up to 15 minutes) to most hotels.

By car
Parma is located along the motorway A1 Milan-Bologna and along the A15 Parma-La Spezia. Parma has two motorway exits:
1. exit "Parma" from A1;
2. exit "Parma Ovest", from A15, about 10 Km from the city

Located at the access points of the town there are the exchange car parks, free and open 24 hours a day. You can leave your car there and reach the city center by shuttle buses. Indoor toll parking is available closer to the center of town, as well as outdoor parking along the city streets marked by blue lines: toll parking in the mornings and afternoons using park meters, free around lunchtime and at night. Prices may vary depending on the location.