SPRTNG SCHOOL

Hands-on Digital Soil Mapping 2022

Programme Monday 16 May to Friday 20 May 2022



The Digital Soil Mapping course is a live on-line course. Therefore it is required to be online at the time indicated in the programme. All times are Central European Summer Time zone (CEST), that is UTC+2.

This training is provided through the ISRIC "community of practice." The community is geared towards national soil information providers, and is also a relevant place for people who produce and work with large soil datasets and/or create soil information products such as digital maps.

Sign up here to join the community

Day 1 Monday, 16 May 2022

08.30 - 09.00 | Online coffee

09.00 – 9.30 Opening

Welcome by ISRIC director Rik van den Bosch, course introduction and overview by Gerard Heuvelink

09.30 – 10.30

Geostatistics for soil mapping
Lecture by Gerard Heuvelink

10.30 – 11.00 | *Morning break*

11.00 – 12.30

Geostatistics for soil mapping
Lecture by Gerard Heuvelink

12.30 - 14.00 | Lunch

14.00 – 15.30

Geostatistics for soil mapping
Computer practical by Gerard
Heuvelink and David Rossiter

15.30 – 16.00 | *Afternoon break*

16.00 – 17.00

Geostatistics for soil mapping

Computer practical and feedback by

Gerard Heuvelink and David Rossiter

Day 2 Tuesday, 17 May 2022

09.00 – 10.30

Geostatistics for soil mapping
Lecture by Gerard Heuvelink

10.30 – 11.00 | Morning break

11.00 - 12.30

Soil and covariate data preparation Lecture by Giulio Genova

12.30 - 14.00 | Lunch

14.00 - 15.30

Soil and covariate data preparation Lecture and computer practical by Giulio Genova, Laura Poggio and David Rossiter

15.30 – 16.00 | Afternoon break

16.00 - 17.00

Soil and covariate data preparation

Lecture and computer practical and feedback by Giulio Genova, Laura Poggio and David Rossiter

Day 3 Wednesday, 18 May 2022

09.00 - 10.30

Remote and proximal soil sensing Lecture by Titia Mulder and Fenny van Egmond

10.30 – 11.00 | *Morning break*

11.00 - 12.30

Remote and proximal soil sensing

Computer practical and feedback by Titia Mulder and Fenny van Egmond

12.30 - 14.00 | Lunch

14.00 - 15.30

Machine learning for soil mapping Lecture and computer practical by Bas Kempen and Laura Poggio

15.30 – 16.00 | *Afternoon break*

16.00 - 17.00

and Laura Poggio

Machine learning for soil mapping
Computer practical by Bas Kempen



Zoom Passcode: may2022!



Zoom Passcode: may2022!



Zoom Passcode: may2022!

Day 4 **Thursday, 19 May 2022**

09.00 - 10.30

Machine learning for soil mapping

Computer practical by Bas Kempen and Laura Poggio

10.30 – 11.00 | Morning break

11.00 - 12.30

Sampling for statistical validation

Lecture by Dick Brus

12.30 - 14.00 | Lunch

14.00 - 15.30

Sampling for statistical validation

Lecture and computer practical by Dick **Brus and David Rossiter**

15.30 – 16.00 | Afternoon break

16.00 - 17.00

Sampling for statistical validation

Computer practical and feedback by Dick Brus and David Rossiter

Day 5 Friday, 20 May 2022

Mapping plant-available soil water and nutrients

Lecture and computer practical by Johan Leenaars

10.30 – 11.00 | *Morning break*

Mapping plant-available soil water and nutrients

Computer practical and feedback by Johan Leenaars and Maria Ruiperez-Gonzalez

12.30 - 14.00 | Lunch

14.00 - 14.45

Virtual excursion World Soil Museum Stephan Mantel

14.45 - 15.45

Course evaluation

How useful are DSM products?

Invited lecture by ISRIC guest researcher **David Rossiter**

16.15 - 16.30

Closing words

Overview

This course introduces methods and software for management, analysis and mapping of soil type and soil properties within the R environment for statistical computing.

Lecturers



Gerard Heuvelink

Course coordinator Geostatistics, uncertainty quantification



Fenny van Egmond

Remote and proximal soil sensing



Machine learning



Laura Poggio

Data preparation, machine learning



Giulio Genova

Soil and covariate data preparation





Mapping plant-available soil water and nutrients



Gonzalez

Mapping plant-

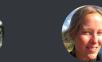


Maria Ruiperez-

available soil water and nutrients



Virtual visit World Soil Museum



David Rossiter

Geostatistics, data preparation, sampling for statistical validation, guest lecture



Titia Mulder

Guest lecturer Remote and proximal soil sensing



Dick Brus

Guest lecturer Sampling for statistical validation



