



Organizer

GIScience group,
Department of Geography,
Friedrich-Schiller-University Jena

- <http://www.geographie.uni-jena.de/Geoinformatik>
- <http://www.lifehealthyforest.com>
- <http://www.mscj.uni-jena.de>

Date & Location

13 – 17 March 2017
University of Jena
Institute of Geography
07745 Jena

Places & Pricing

- Fee: 300 €
- 25 Places
- Stipends available for selected participants. Please prepare a short motivation letter.

What to expect

State of the art statistical analysis of high-dimensional and especially hyperspectral data from leading experts in the respective fields.
A mixture of lectures and lab classes / hands-on sessions using the widely used programming language R
Networking with other data-focused scientists.

Information

- Catering available (not including lunch)
- Personal laptops needed
- Certificates of participation

Registration

Please use [this form \[link: http://tinyurl.com/MSCJLIFE\]](#) to apply for participation in the MSCJ LIFE Spring School 2017.

Contact

patrick.schratz@uni-jena.de

Day 1

Hyperspectral Day

9:00 – 12:00

Introduction to hyperspectral remote sensing

Marco Peña (Alberto Hurtado University, Chile)

13:00 -14:45

Hyperspectral applications: Forest

Aneta Modzelewska (Forest Research Institute, Raszyn)

15:15 – 17:00

Hyperspectral remote sensing for forest

Dr. Henning Buddenbaum (University of Trier)

Day 2

R: Introduction & Geocomputing

09:00 – 10:00

Introduction to programming and data analysis with R

Patrick Schratz

10:30 – 12:00

Using R as a GIS

Dr. Jannes Muenchow

13:00 – 17:00

Handling & Visualization of spatial objects

Dr. Tim Appelhans (GfK Geomarketing)

Day 3

R & Hyperspectral Analysis

9:00 – 12:00

Statistical methods for hyperspectral data analysis

Prof. Alexander Brenning

13:00 – 14:45

Spectral data analysis: A physical chemistry perspective

Dr. Thomas Bocklitz (IPC Jena)

15:15 – 17:00

Networking and poster presentations

All participants

Day 4

High-Dimensional Modelling

9:00 – 12:00

Dealing with high-dimensional data: Feature selection and dimension reduction

Prof. Alexander Brenning

13:00 -15:00

Dealing with high-dimensional data: Statistical and machine-learning techniques

Prof. Alexander Brenning

15:30 – 17:00

Lab class: Applied hyperspectral data processing in R

Patrick Schratz

Day 5

Field Trip

08:00 - 12:00

Thuringian Forest Excursion

(to be determined)

