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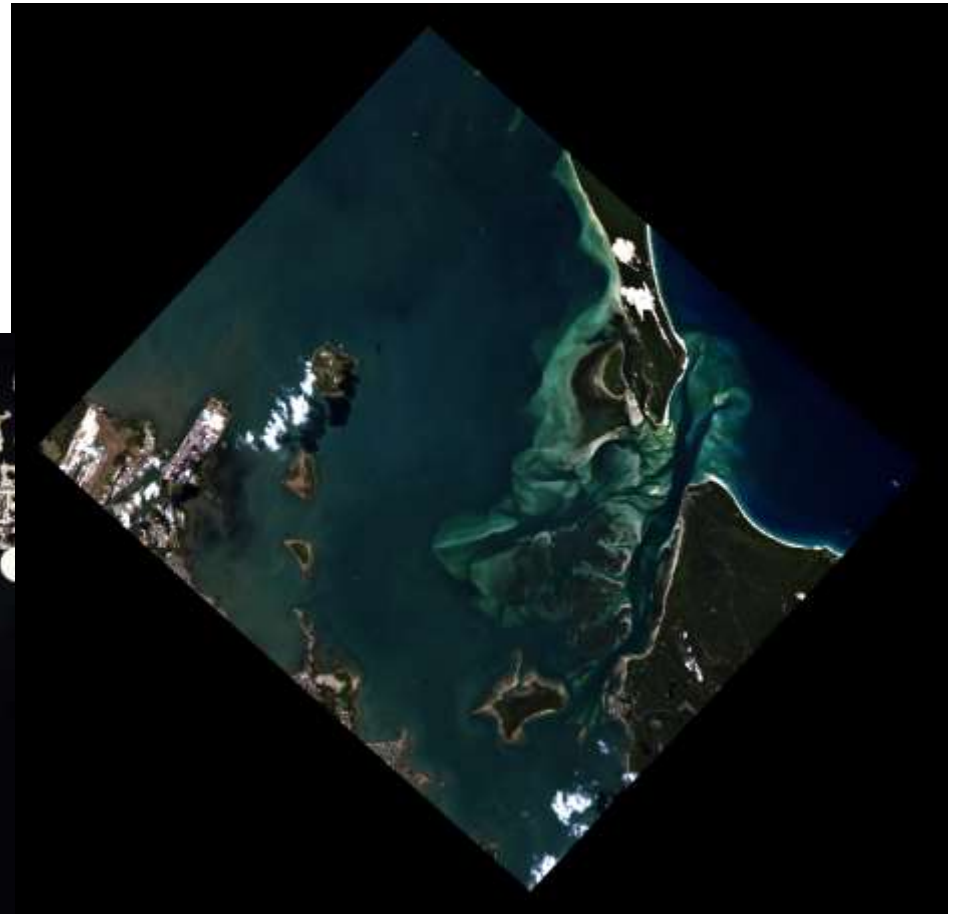

GEO 418 – „Hyperspectral Earth Observation“

Martin.Bachmann@dlr.de

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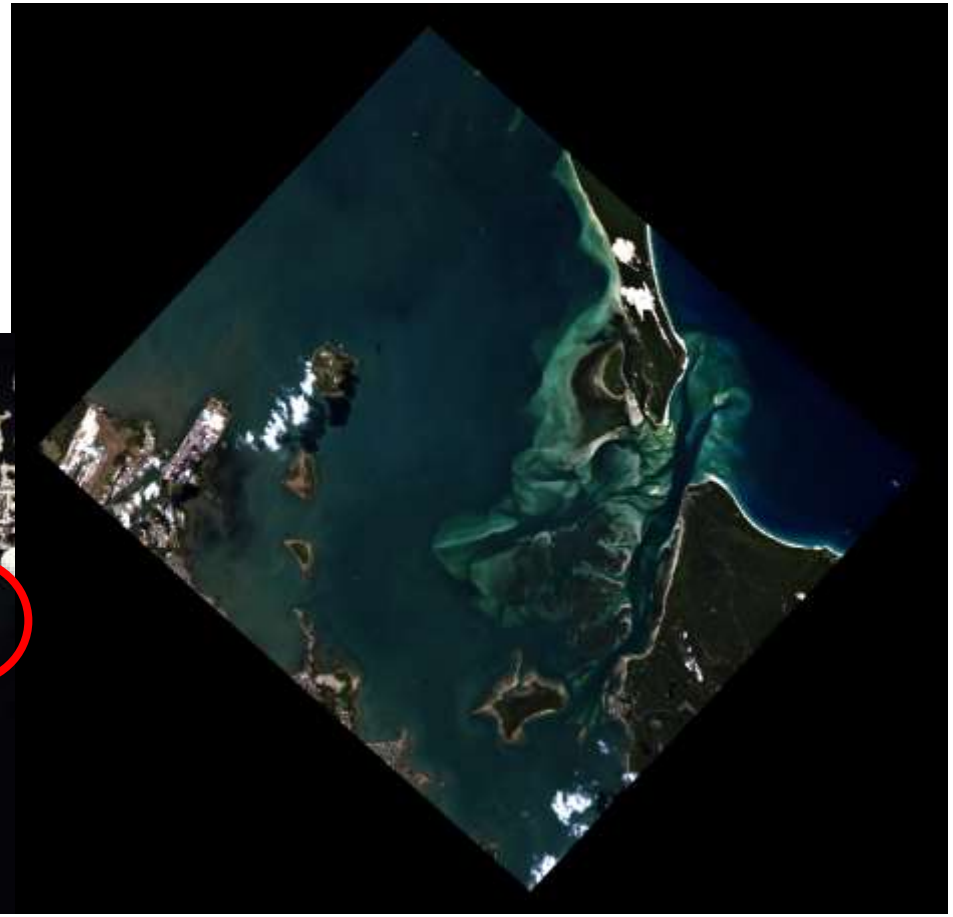

GEO 418 – „Hyperspectral Earth Observation“

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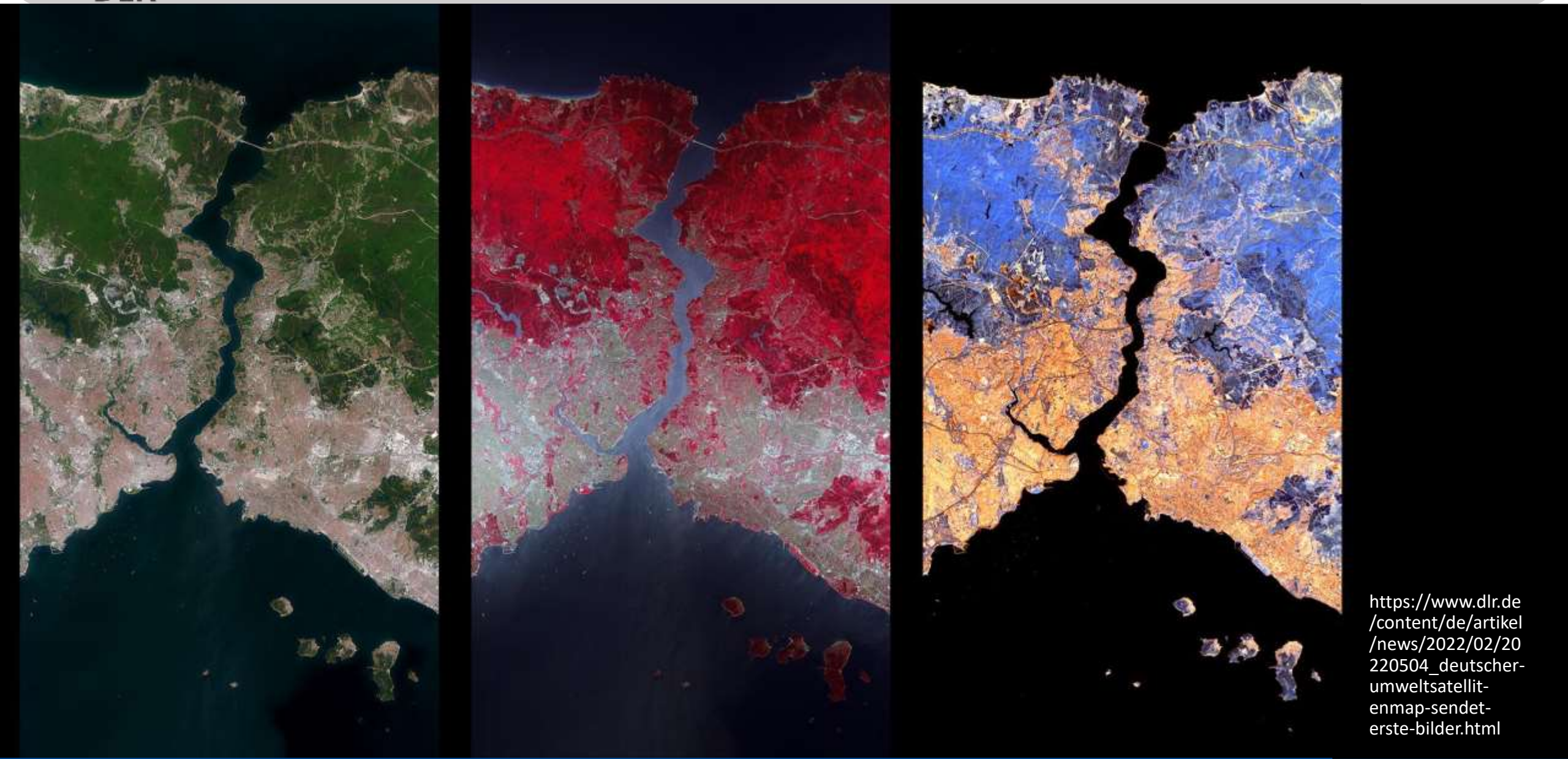
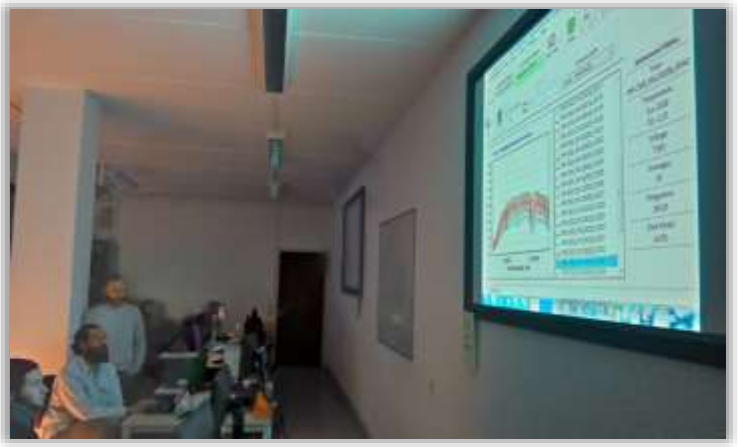
1st EnMAP data, released 4.5.2022



https://www.dlr.de/content/de/artikel/news/2022/02/20220504_deutscher-umweltsatellit-enmap-sendet-erste-bilder.html

GEO 418 – Content

- Module 1 – Theory of Optical Remote Sensing
  Field and Laboratory Spectroscopy
- Module 2 – Spectroscopic measurements
- Module 3 – Data analysis



GEO 418 – Content

- Module 1 – Theory of Optical Remote Sensing
  Field and Laboratory Spectroscopy
- Module 2 – Spectroscopic measurements
- Module 3 – Data analysis

} on site, date is tbd

GEO 418 – Content

- **Module 1 – Theory of Optical Remote Sensing**
  - Physics of imaging spectroscopy (IS)
  - Spectral signatures
  - Applications of IS
  - Sensors and missions

– Field and Laboratory Spectroscopy

  - Field instruments
  - Measurement principles in the field and in the lab
  - Data analysis, quantitative retrieval methods

GEO 418 – Content

- **Module 2 – Spectroscopic Measurements**
  - Hands-on measurements – outdoors
- **Module 3 – Data Analysis**
  - Analysis of spectroscopic measurements
  - Interpretation of results, (semi-)quantitative analysis
  - Analysis of airborne and spaceborne datasets (HyMap and DESIS, EnMAP tbd)

GEO 418 – Final assignment

- Analysis of the taken field spectrometer data

- Topics may include:
  - Qualitiative retrieval of soil moisture based on spectroscopic data using PLS and MLR
  - Investigation of the dependency between LAI and spectral reflectance over different plant species
  - …

GEO 418 – date & time

- Next dates:

  May: 6.5., 13.5., 20.5
  June: 3.6.
  July: 1.7., 15.7., 22.7.
  plus: field measurements (tbd)

- Time:

  (originally): 9:00 – 12:00

  … but: due to EnMAP Commissioning Phase, I now have meetings each Friday 11-12

- Thus: now from 8:00 – 11:00