

Course on Interferometric Point Target Analysis (IPTA)

Principles and processing approach

2 - 5 May 2023 (3 $\frac{1}{2}$ days)

In Persistent Scatterer Interferometry (PSI) and SBAS the temporal and spatial characteristics of interferometric signatures collected from point targets are exploited to accurately map surface deformation histories, terrain heights, and relative atmospheric path delays. Our course addresses theoretical aspects of Persistent Scatterers Interferometry as well as practical approaches supported by GAMMA's Interferometric Point Target Analysis (IPTA) Software module.

The course covers the following aspects

- Principles of Persistent Scatterer Interferometry (PSI) and Short Baseline Interferometry (SBAS)
- Step by step discussion of PSI and SBAS processes with IPTA (point identification, phase unwrapping, atmospheric phase model, etc.) for selected cases.

The course includes theoretical parts (presentations) as well as practical parts (hands-on) with the participants conducting the actual processing steps.

This course is suited to participants who

- are interested in PSI and would like to gain an insight on the IPTA processing approach
- are familiar to IPTA but require more in depth knowledge of IPTA processing capabilities

The course will be held by GAMMA personnel. Course language is English.

The course is planned to take place on-site (at GAMMA), but depending on the pandemic situation the format may need to be changed to on-line (which would also result in a modified schedule).

Schedule

| Tue, 2 May | 09:00 - 12:00 13:30 - 17:00 | Introduction to PSI and SBAS First part of single reference stack PSI processing |
|------------|--------------------------------|---|
| Wed, 3 May | 09:00 - 12:00 13:30 - 17:00 | Second part of single reference stack PSI processing First part of multi reference stack PSI processing |
| Thu, 4 May | 09:00 - 12:00 13:30 - 17:00 | Second part of multi reference stack PSI processing First part of SBAS processing |
| Fri, 5 May | 09:00 – 12:00 | Second part of SBAS processing |

Location

GAMMA Main Office is in Gümligen, near Bern, Switzerland. GAMMA is reachable with public transport from Bern. Detailed information on travel options, accomodation and course logistics will be circulated upon registration.

Course fees

3 ½ days Regular: 3600 Swiss Francs (CHF) Student: 2400 Swiss Francs (CHF)

The fee includes course material. If on site, the training includes lunches and a social event. Participants are required to have own insurance. Registration is required as number of participants is limited. Please use the application form.

Contact

For more information, please contact

Dr. Maurizio Santoro, E-mail: santoro@gamma-rs.ch, Tel: +41–(0)31–9517005 / Fax: +41– (0)31–9517008.



Application form

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To register, please fill in the application form and send it back per email to $\underline{\text{santoro@gamma-rs.ch}}$ or per fax to $+41 - (0)31 - 951 \ 70 \ 08$.

Upon reception of the application form, an invoice will be sent.

If you have any request or comment, please report in the box below.

| Family name: | | | | | | |
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| First name: | | | | | | |
| Title (Dr., Prof.): | | | | | | |
| Institute: | | | | | | |
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| Please select as app | ropriate | Regul | lar | Student | | |
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| Comments | | | | | | |
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| Herewith I confirm that the information provided in this application is correct. In case of withdrawal from the course, please inform GAMMA Remote Sensing as soon as possible, and no later than 30 April 2023. | | | | | | |
| Date | | | Signature | Signature of participant | | |
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