Invitation to the Swiss Doctoral School of Science Education (4. SDDSE) 
as ETH Winter School@Monte Verità (20-23/1/2019) 
A. Müller (Unige), A. Vaterlaus (ETHZ)

KEY TOPICS AND FOCUS OF THE WINTER SCHOOL

The program will have a focus on the following key topics:

- **Current research** in the field, i.e. important theoretical developments and empirical work (such as about learning tasks, Context Based Science Education, gender sensitive teaching, etc., new learning technologies, the role of history and philosophy of science for science learning, etc.).
- **Methods** relevant for current research in science education and for research projects of participants, such selected topics of classical test theory, power and effect size analysis, item response theory, domain specific tests, qualitative methods, etc. (applied to topics of common interest or projects of participants).
- **Presentation and discussion** workshop component about the individual theses, including project specific counseling by the supervisor group and invited experts.
- **Scientific professionalization** as supplementary component, eg. modules on scientific writing, project and self-management, gender equality support in science education research, networking and internationalization of research (all with respect to science education and the projects of the participants).

The winter school is organized in cooperation with the Swiss association of science education research (DiNat), with input from researchers in this network, and from experts invited from abroad.

MAIN OBJECTIVES OF THE ETH WINTER SCHOOL

Closely linked to the above key topics, the main objectives are as follows:

- to provide a thorough and critical understanding of selected current background theories
- to provide a firm grasp of a selection of state-of-art methods (including software use)
- to foster key competences for doing research (eg. literature research, scientific English, etc.)
- to provide an occasion to gain experience for presentation and discussion of research, to obtain expert feedback and counseling for the own project, to tie professional contacts on a national and international level

In-depth knowledge about theoretical background and methodology is on the one hand supposed to allow for links or transfer to the own study of the participants, but on the other hand also to provide the future expert a broader view of the field, in order to prevent a narrow perspective and compartmentalization.

EXPECTED SCIENTIFIC IMPACT RESULTING FROM THE 4. SDDSSE

Research in science education in Switzerland currently undergoes a highly dynamic development, with promotion of young researchers, fostering research-practice synergy, and strengthening an evidence-based approach in science education in schools and in science teacher education as important objectives. Within this framework, the proposed winter school is expected to have a positive impact on several levels:

1) Support of ongoing theses and research projects.
2) Impact on science education practice.
3) Internationalization of science education research.
PRELIMINARY PROGRAM

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<td>9:00 – 10:00</td>
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<td>Seminar 1 on Methods with Workshop</td>
<td>Plenary Talk 2 Project Presentation</td>
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<td>Coffee / Opening</td>
<td>Project Presentation and Discussion</td>
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Registration and Fees

The doctoral school will be held at Monte Verità, Centre Congressi Stefano Franscini (CSF)
http://www.csf.ethz.ch/about-us.html
Registration fee is 250 CHF (covering also board and lodging)

Please send your application for the Winter School by e-mail to:
ETH Zürich
Mrs Franziska Steck
Otto-Stern-Weg 1
8093 Zurich
+41 44 633 25 85
steckf@phys.ethz.ch

Supervisors who are willing to participate in the discussions about the presented projects and in the counselling sessions are also welcome. This holds in particular for postdocs, in order to provide them with support for and exchange about the task of supervising theses. They should indicate – a description of their own research in the same format as the PhD students (see below) – the PhD students with whom they work

Indicate the title of your project and an abstract of max. 300 words (in a word file).
Deadline: 1/12/2018