



How to write an abstract

Why is an abstract important?

Nowadays, the search for scientific publications has moved almost exclusively to the internet. Typically, on-line publication databases contain only abstracts. Therefore, an abstract serves the function of 'selling' your work, and it is vital to write a complete but concise description of your work to entice readers into purchasing your article or listening to your presentation.

Parts of an abstract

Despite the fact that an abstract should be brief and concise, it should include all the following sections:

Motivation:

Why do we care about the problem and the results?

Articulate the importance of your work, the difficulties of the research area, and the impact it might have.

Problem statement:

What problem are you trying to solve?

State the scope of your work is (a generalized approach or for a specific situation). However, be careful here to not use too much jargon.

Approach:

How did you go about solving or making progress on the problem?

Describe your methodology (simulation, analytical approach, prototype, experiment, etc.) and its most important parameters.

Results:

What is the answer?

Express your results in numbers when applicable. Avoid vague expressions such as 'very', 'small' or 'significant' instead of using orders-of-magnitude, etc.

Conclusions:

What are the implications of your research?



Tell the reader if it is going to change the world, be a significant step forward or simply serve as a road sign indicating that this path is a waste of time (all those results are useful). State also if your results are general, or specific to a particular case.

Related to the theme:

According to the motto of this year's symposium "*Science Cocktail: Mixing Disciplines to Drive Innovation*," we would like to invite all Empa PhD Students to think about how their research breaks boundaries of traditional disciplines. Empa is an interdisciplinary research institution and that gives us an opportunity to tackle new, as well as long-term problems and come up with innovative ideas.

Please include a short paragraph explaining how you mix different disciplines and fields to make your science cocktail. (Approx. 50 words)

Additional tips

- Think about search phrases and keywords related to your work and use them in your abstract.
- PhD students who just started their projects and do not yet have results may write their abstract based on the first three sections, namely: motivation, problem statement and planned approach.
- Count your words! The word limit for the Empa PhD Symposium is 200 words, which is a commonly used prescription. Please make sure that the abstract does **not exceed the limit**.
- Optional: You are free to add one picture along with your abstract if you think it is important for explaining your project. This may be related to a method or a result.