



Empa Ph.D. Symposium 2022
Emerging Technologies
Recent advances, current challenges and outlook

How to write an abstract

Why the abstract is important

Nowadays, the search for scientific publications has moved almost exclusively to the internet. However, on-line publication databases typically contain only abstracts. The abstract serves the function of **'selling' your work**, so 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 the abstract should be brief it must include the following sections, which are typically single sentences:

Motivation:

Why do we care about the problem and the results?

This section should include the importance of your work, the difficulties of the research area, and the impact it might have if successful.

Problem statement:

What problem are you trying to solve?

State here what 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?

Put the results here in numbers when possible. Avoid vague expressions such as 'very', 'small' or 'significant' using instead orders-of-magnitude, etc.

Conclusions:

What are the implications of your answer?

Tell to 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.

Important! According to the motto "*Emerging technologies*", we would like to invite all Empa PhD Students to think about their contribution to this field. Take a moment to think how your research might impact the future generations. Let us know, what is a larger perspective of your work, and moreover, how can a society benefit from it now or in the next century.

- Please include a small paragraph explaining the future benefits once your research and knowledge is implemented to the society. (Approx 50 words.)

Additional tips

- Think about search phrases and **keywords 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 **150 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 could include a method or a result.

All PhD Students are welcome to send an abstract to PhD-Symposium@empa.ch before **30th September 2022**. Please name your file "*LastName_FirstName*".