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Faculty of Science

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Helsinki, Finland

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Abstract

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Keywords: first keyword, second keyword, third keyword

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List of publications

This thesis consists of an introductory review, followed by XX research articles. In the introductory part, the papers are cited according to their roman numerals.

1. First, A., Second, A., Third, A., & Fourth, A. (2020). Title of paper one. *Journal name*, 1 (1), xxxx–xxxx. https://doi.org/xx.xxxx/xxx-xx-xxxx-xxxx
2. First, A., Second, A., Third, A., & Fourth, A. (2021). Title of paper two*. Journal name*, 2 (2), xxxx–xxxx. https://doi.org/xx.xxxx/xxx-xx-xxxx-xxxx
3. First, A., Second, A., Third, A., & Fourth, A. (2022b). Title of paper three. *Journal name*, 3 (3), xxxx–xxxx. https://doi.org/xx.xxxx/xxx-xx-xxxx-xxxx
4. First, A., Second, A., Third, A., & Fourth, A. (2022a). Title of paper four*. Journal name*, 4 (4), xxxx–xxxx. https://doi.org/xx.xxxx/xxx-xx-xxxx-xxxx
5. First, A., Second, A., Third, A., & Fourth, A. (2022a). Title of paper four. *Journal name*, 4 (4), xxxx–xxxx. https://doi.org/xx.xxxx/xxx-xx-xxxx-xxxx

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# Introduction

This is an example format of the introductory part of a PhD thesis used in the Institute of Atmosphere and Earth System Research. It produces similar format as the Latex template. Feel free to modify it according to your personal needs**.**

Note that the numbering starts from the very first page of the file but should be visible only from the beginning of Introduction (this page). Additionally, introduction should start from an odd page and if this is not the case add a blank page before the introduction.

Make sure that the Contents updates correctly. It should contain all chapters from Introduction forward as well as References.

# Materials and methods

## Measurements

Examples for references: Vehkamäki et al., 2012; **Paper IV** (there is no default reference management software, so that you can use whatever suits your needs)

### Field measurements

#### **Examples for equations**

The Gibbs free energy is defined as

|  |  |  |
| --- | --- | --- |
|  | $G=U+P\_{0}V-T\_{0}S=H-T\_{0}S$, | (2.1) |

where *U* is the internal energy of the system, *V* is its volume, *S* is its entropy, and *P*0 and *T*0 are the pressure and temperature determined by the environment, respectively. Equations (as well as sections and figures etc.) can be referred to by inserting a cross-reference Eq. ( 2 .1).

#### Examples for figures



Figure 2: Processes included in the dynamic cluster population simulations. For figure clarity, the processes are presented for a two-component acid–base system, but the model can be applied to arbitrary one- or multicomponent systems.

### Laboratory measurements

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## Data analysis

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# Results and discussion

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## First result

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## Second result

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## Third result

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# Review of papers and the author’s contribution

**Paper I.**  Pellentesque interdum sapien sed nulla. Proin tincidunt. Aliquam volutpat

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**Paper II**. Pellentesque interdum sapien sed nulla. Proin tincidunt. Aliquam volutpat

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**Paper III**. Pellentesque interdum sapien sed nulla. Proin tincidunt. Aliquam volutpat

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**Paper V**. Pellentesque interdum sapien sed nulla. Proin tincidunt. Aliquam volutpat

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# Conclusions

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ligula sed lacus. Duis cursus enim ut augue. Cras ac magna. Cras nulla. Nulla egestas.

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consectetuer.

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