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| **Item** | **Fill in here** |
| 1. Book title | Introduction to Experimentation in Physics |
| 1. Sub-title |  |
| 1. Abstract/Synopsis maximum 1000 characters incl. spaces | There are several reasons physicists carry out experiments: to develop new knowledge, like the discovery and usage of radioactivity; to test hypotheses and theories, think of the discovery and proof of Higgs particles some 75 years after the prediction of their existence; and to explore and determine features of various systems. One cannot simply carry out an experiment and call it a scientific experiment. There are many scientific rules that must be adhered to. One must put a lot of work and effort into the experiment and in writing the report before others (peers, other experts in the field) can be convinced that what was found is reliable and valid. Doing the work thoroughly will also help to make sure that the values of quantities can be determined accurately. This book, used in the course “Introduction to Experimentation” gives you a first glimpse of what it means to do experiments in physics, and to demonstrate the rules that must be applied when doing such experiments. |
| 1. Author(s)  * First and last name * Email address(es) * ORCID-id  (vb. [https://orcid.org/0000-0000-0000-0000](https://orcid.org/0000-0000-0000-0000))) * Affiliation (*Delft University of Technology, Faculty of……….)* | Freek Pols  [c.f.j.pols@tudelft.nl](mailto:c.f.j.pols@tudelft.nl)  <https://orcid.org/0000-0002-4690-6460>  Department of Science & Engineering Education, Faculty of Applied Sciences, Delft University of Technology, The Netherlands |
| 1. Author(s) bio   (per author max. 600 characters) | Freek Pols (1986) worked as a physics teacher for 10 years. Since 2019, he has been working as a practicum coordinator at TU Delft’s Engineering Physics program. In 2023 he obtained his PhD on practicum education, specifically on teaching scientific inquiry. He now is an assistant professor at the Science & Engineering Education department. His research remains directed at the development of experimental physics education, but now with a focus on university level. |
| 1. Keywords (max. 5) | Physics, python, experiments, scientific inquiry |
| 1. THEMA code, see[**Thema Subject Categories (editeur.org)**](https://ns.editeur.org/thema/en) |  |
| 1. Educational level (BSc/ MSc) | BSc. |
| 1. Weblink  (<https://interactivetextbooks.tudelft.nl/>) | <https://interactivetextbooks.tudelft.nl/tn2985> |

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