



Virtual Measuring Systems and Digital Twins

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Message from the Guest Editors

Dear Colleagues,

In the course of the digital transformation, the importance of mathematical–physical simulations and in silico experiments is increasing rapidly. If real measuring equipment and measurements are simulated with such simulations, this can be called a “virtual measuring device” or “virtual measurement”. In many areas, these are now in everyday use.

In this development, the task of metrology is to secure confidence in simulation results when they are used in the same way as or combined with real measurements. From the point of view of metrology, this results in several overriding questions:

1. How to ensure confidence in simulation results
2. How to establish comparability of virtual and real measurements
3. Which standards for interfaces, metadata and data formats are necessary

This Special Issue is related to the [VirtMet Workshop 2021](#). In addition to VirtMet Workshop 2021 papers, other independent submissions are also welcome.

