



4th PV Performance Modelling and Monitoring Workshop

TÜV Rheinland Group
Cologne, Germany
22nd and 23rd October, 2015

Introduction

TÜV Rheinland, Sandia National Laboratories, and the IEA PVPS Task 13 are co-organizing the 4th PV Performance Modelling Collaborative (PVPVC) Workshop to be held at TÜV Rheinland headquarters in Cologne, Germany (22-23 October 2015). This workshop brings together solar PV professionals and researchers to learn about and discuss new and important technical issues related to PV performance modelling. This workshop will be stimulating, interactive, and provide valuable information for modellers, model developers, and other users of PV performance model results.

Session 1. Solar Resource Data and Uncertainty

- Satellite irradiance models and data sets
- Available irradiance and weather data sets and PV online assessment tools
- Review of modelled solar resource uncertainty
- Reducing solar resource errors

Session 2. Soiling Predictions and Effects on Module and Array Performance

- Soiling impact on energy predictions
- Effects of cleaning robots and concepts to reduce energy yield losses
- New PV technologies for reducing the effects of soiling
- Validation of predictive soiling models

Session 3. Spectral Corrections for PV Performance Modelling

- Available measured spectral data for PV performance modelling
- Spectral effects for different PV Cell technologies and different climatic zones
- Proposed metrics for describing spectral effects (e.g., air mass, average photon energy, blue-to-red ratio, spectral mismatch factor)
- Methods for estimating these metrics from readily available data

Session 4. Bifacial PV Array Performance Modelling

- Overview of the bifacial market potential
- Technical aspects of the bifacial performance advantages
- Modelling efforts to predict bifacial PV array and system performance

Session 5. PV Modelling Applications: Modelling Tool Updates

- Developers of PV performance software applications will present overviews and technical updates of their models.

Session 6. Field Monitoring and Validation of PV Performance Model

- PV model validation using monitored performance and other field data in different climates
- Results of a blind PV modelling exercise
- Comparison of accuracies of different PV performance model predictions for a monitored system
- Benchmarking the state of the art for PV performance modelling

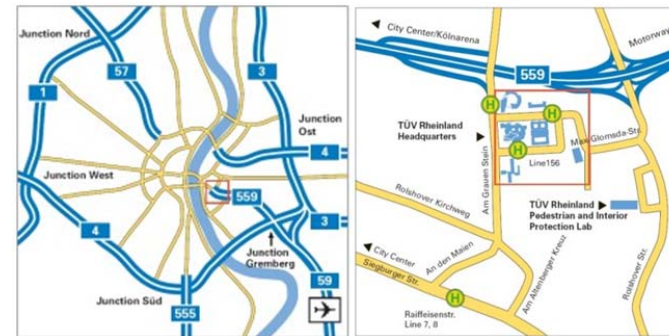
Registration

If you would like to attend the workshop, please register here:
www.tuv.com/solarenergy

Participation fee: 300 EUR incl. VAT

How to arrive

TÜV Rheinland Group
Rheinlandsaal, Am Grauen Stein, 51105, Cologne, Germany



Organisation

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