



Exceptional service in the national interest

PV Modeling Academy

Clifford W. Hansen, Marios Theristis

Sandia National Laboratories, Albuquerque, NM USA

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PVPerformance
MODELING COLLABORATIVE



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Agenda



13:15 – 13:25 : Motivation and Objectives

13:25 – 13:40 : Elicitation using Slido

13:40 – 13:55 : Group discussion

Motivation



PVPMC has focused on reducing uncertainty in PV performance modeling by:

- Fostering transparency and clarity.
- Technical improvements to models.

Discrepancies persist and the rate of improvement appears to be slowing.

"...human errors are not uncommon in PV performance modeling"¹

What can PVPMC do to reduce human error in PV performance modeling?

1. <https://doi.org/10.1002/pip.3729>

Aspiration and Today's Objective



Understand demand for and potential scope of formal or professional training, i.e. a PV Modeling Academy

What we're doing today:

- Collecting data to understand knowledge and skills relevant for PV modeling, and how professionals are learning

What we're not doing today:

- Assuming that a PV Modeling Academy is the answer
- Designing a training program or considering delivery of training

Structure for our analysis



“KSA” is a common framework for describing educational content and objectives relevant to a task.

- Knowledge: theoretical or practical understanding of a subject.
“I can derive the formula for angle of incidence”
- Skills: proficiencies developed through training or experience.
“I can calculate angle of incidence using pvlib or SAM”
- Abilities: capability to accomplish a task using knowledge and/or skills.
“I can calculate irradiance reaching a module’s cells from GHI”

Warm-up Question



Knowledge and/or skills gaps for PV modelers contribute to uncertainty in model results.

Agree or disagree?

Question #1



What knowledge or skill do you wish you had when you started in PV modeling?

Top 3 answers, please be as specific as you can.

Please tag your response "@Q1"

Question #2



What knowledge or skill has proven valuable for you over time?

Please tag your response "@Q2"

Question #3



How did you acquire PV modeling knowledge and skills?

Please tag your response "@Q3"

Question #4



If you were recruiting for a PV modeling position, what knowledge or skills would you require?

Please tag your response "@Q4"

Question #5



How would you measure knowledge or skill at PV modeling?

Please tag your response "@Q5"

Question #6



What do you think could explain the persistent uncertainty in PV modeling?

Please tag your response “@Q6”