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PVPerformance MODELING COLLABORATIVE

What's new in PVLib and pvlib-python?

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What's new (since May 2017) in PVLib for Matlab?

What's new in PVLib for Matlab?

Planned changes for 1.33:

- Add bifacial irradiance model from Purdue University
  - Regular rows of fixed tilt module racks
  - Calculates direct, sky diffuse, and ground reflected irradiance on front and rear surfaces
- Add reflection loss factors by irradiance component (direct, sky diffuse, ground reflected)
  - Martín, N., Ruiz, J. M. 2005. Annual angular reflection losses in PV modules. Progress in Photovoltaics: Research and Applications, 13(1), 75–84.
- PVLib 1.34 will have some API changes
  - Function name pattern for some function groups
  - E.g., `pvl_martinruiziam.m` and `pvl_physicaliam.m` will become `pvl_iam_martinruiz.m` and `pvl_iam_physical.m`
- PVLib for Matlab is on github.com at https://github.com/sandialabs/MATLAB_PV_LIB/

What's new in pvlib-python?

- Current version 0.5.1 (released Oct 17, 2017)

https://github.com/pvlib/pvlib-python/releases

- v. 0.5.0 (rel. June 2017) has API changes to SingleAxisTracker functions
- New capabilities in 0.5.1
  - Support for ideal devices in single diode models (e.g., Rs = 0 or Rsh = Inf)
  - Test cases for IV curve calculators v_from_i and i_from_v
- Performance improvements
  - Linke turbidity lookup (for clear sky models)
- Various bug fixes, documentation improvements
- v. 0.5.2 release soon
  - Add POA to GHI function
  - Updates to SAM module and inverter libraries
  - Refactor of globalinplane and total_irrad functions

Planned for pvlib-python 0.6.0

- Add bifacial irradiance model for fixed tilt systems
- Add 'gold' IV curves for algorithm testing and verification
- Create pvlib.io module
- Update adrinverter parameter database

- All of these changes are volunteer contributions that leverage other work

- We welcome (and need) your participation at https://github.com/pvlib/pvlib-python (code development)

and https://groups.google.com/forum/#!forum/pvlib-python (announcements and user discussion)