

Scattering working group

IPWG-IWSSM Bologna 2016 recommendations

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Action item to IPWG

Topic: Single-scattering databases

Problem: There is need for an interface between user needs and what the scattering research community can provide.

- Create a single scattering focus group to discuss common formats, sharing of databases, and exchange of information
 - Also provide an overview of what databases are available, and of best practice in using those databases
 - This group was set up and had its first meeting later at IPWG-IWSSM.
- Single scattering properties are just the start of a process towards knowing the bulk scattering and other physical properties of hydrometeors, so that cloud and precipitation physics can be better represented in models and in forward operators.

POC: Stefan Kneifel

Action item to IPWG

Topic: Using scattering properties in radiative transfer operators

Problem: Scattering and microphysical assumptions are often “hard-coded” into common radiative transfer tools

- Developers of radiative transfer tools (e.g. RTTOV, CRTM, Quickbeam) should start to decouple their forward models from their scattering datasets.
- A common single scattering database format will be a great help in this process.

POC: Alan Geer, Ben Johnson

Action item to CGMS

Topic: Supporting full exploitation of precipitation missions

Problem: Better representations of particle scattering and improved microphysical knowledge are critical to full exploitation of current and future microwave missions.

Recommendation: Space agencies should recognize the importance of this area of research to their missions, and should encourage and support further research.

POC: ?