

Computational light scattering, project task 2

Use multiple scattering codes RT-CB or SIRIS. Compare two or more cases (set of parameters) and their scattering properties. Possible options are

- Study at which packing densities the coherent backscattering peak starts to appear. Use RT-CB with Rayleigh-scatterers inside either plane-parallel slab or spherical volume
- Study the effect of having either small Rayleigh scatterers, or larger Mie scatterers. Use RT-CB
- Study how the scattering pattern changes with larger volumes. Start with small spherical volumes, and increase the volume size. Use RT-CB
- Study the degree of linear polarization with Rayleigh-scatterers and then larger Mie scatterers in spherical volume with packing density around few percent. Check especially from the CB output if you start to see the negative polarization lobe close to backscattering direction. Use RT-CB
- Create a media consisting of multiple particles and present it in 3D mesh format. Use multi-particle SIRIS to compute its scattering properties

Show the results with figures of selected Mueller matrix elements of the particles. Show at least the intensities, preferably also some other element such as the degree of linear polarization.