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Leaf Polarized BRDF Simulation based on Monte Carlo 3-D Vector
RT Modeling

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1 Highlights

- 2 • Vector radiative transfer to model leaf polarized reflectance is proposed.
- 3 • Statistics about ray absorption and probability of exiting the medium allow to predict scattered energy
4 after large number of transition
- 5 • Monte Carlo weighted sampling allows to predict the ray tracing at wavelength given it at close wavelength
- 6 • Rays forget their original direction after a number of transitions allowing to simulate multi-sun orientation
7 high order scattering using the same ray tracing.
- 8 • Leaf are not Lambertian mediums
- 9 • Specular reflection is not pointlike.
- 10 • Horizontal and diagonal polarizations are observed at forward and inclined forward direction.

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