Statistical Anti-reflection Structures (Random Moth-Eye Structures)
Abstract

In this demo we will model the moth-eye structure by a random (statistical) distribution of cones. For this purpose, the *Random Cone Interface* is used.
Task: Modeling of Statistical Moth-Eye Structures

plane wave
wavelength: 633nm

Moth-Eye structures
(statistically distributed cones)

reflectance
transmittance
Random Cone Interface

The moth-eye structure is modeled by a random (statistical) distribution of cones. For this purpose, the *Random Cone Interface* is used.

The characteristics of the surface are determined by the following parameters:

- number of cones (in the chosen definition area)
- height of cones (cones have constant height)
- diameter of the cones at basis
- Variance of cone diameter
- size of *Definition Area / Size for Random Distribution*
- period of interface
Result: Dependency on Number of Cones
Result: Dependency on Height of Cones
Result: Dependency on Base-Diameter of Cones
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<th>title</th>
<th>Statistical Anti-reflection Structures (Random Moth-Eye Structures)</th>
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<td>category</td>
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<td>further reading</td>
<td>- Rigorous Analysis and Design of Anti-Reflective Moth-Eye Structures</td>
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