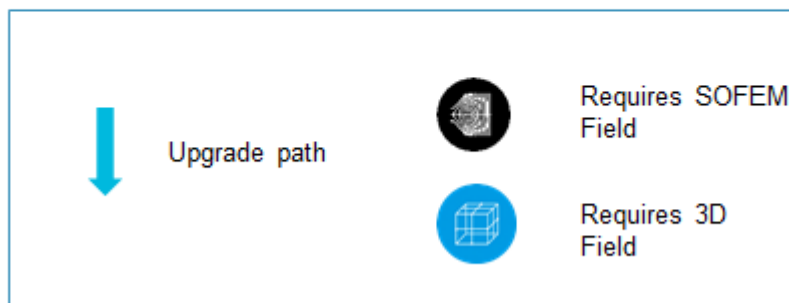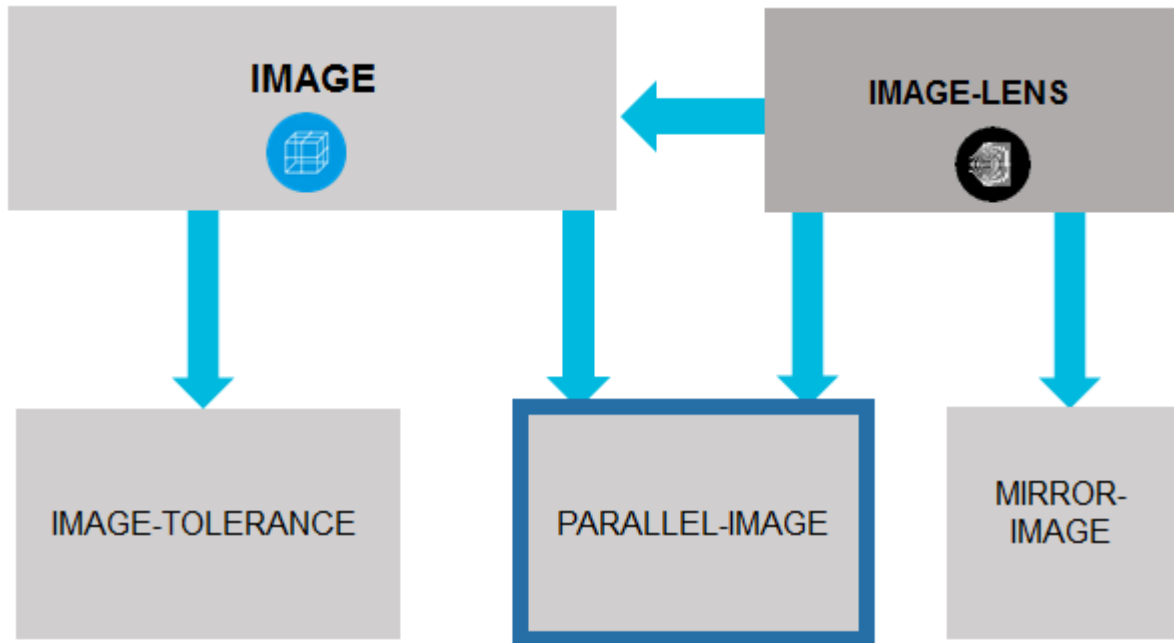# PARALLEL-IMAGE

Parallel execution on multicore processors

Overview

In PARALLEL-IMAGE we have introduced new algorithms that take advantage of the new multi-core CPUs available in most modern PCs. The time-intensive parts of the programs involve the computation of the discrete Coulomb forces between particles in the system. This force computation has been significantly speeded up by using a hierarchical tree algorithm that operates in parallel so that the Coulomb forces on each time-step of the ray-trace can be computed on all the available processors in the PC.