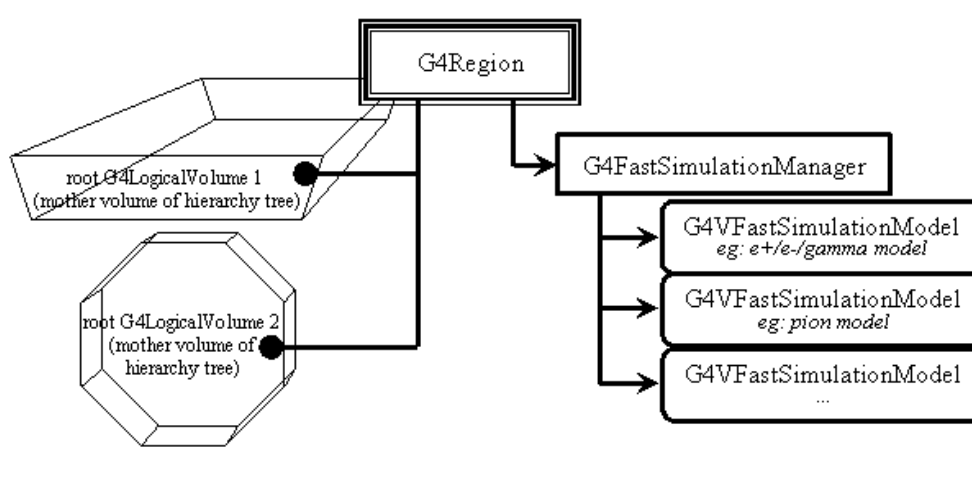


G4 Parameterisation

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Parameterisation components

- **G4VFastSimulationModel**: abstract class you have to inherit from
- **G4FastSimulationManager**: manage list of models and message them at tracking time
- **G4FastSimulationManagerProcess**: interface between tracking and param, to be added to the process list for particles to parameterise
- **G4GlobalFastSimulationManager**: management of G4FastSimulationManager and ghost volumes facilities

- Parameterisations bound to G4Region (envelope)
 - Need to specify:
 - Particles and trigger conditions
 - Parameterisation itself
 - Parameterisation code messaged to all daughter volumes
- If trigger condition satisfied
 - Not apply physics
 - UserSteppingAction invoked

- Concrete parameterisation (hep-ex/0001020)
 - Trigger:
 - e+/e- particles with minimum energy
 - Shower expected to be contained in envelope
 - Action:
 - Particle and secondaries killed
 - Energy deposited according to equation
 - Use:
 - Add fast simulation process to particle process manager (as for all parameterisations)
 - Assign G4FlashShowerModel to envelope
 - Use G4VGFlashSensitiveDetector as additional base clas for sensitive detector
 - Implement separate interface to ProcessHits
 - Products:
 - Longitudinal and radial shower profile
 - Tuning:
 - GFlashHomoShowerParameterisation(G4Material * aMat, GVFlashHomoShowerTuning * aPar = 0);
 - GFlashSamplingShowerParamterisation(G4Material * Mat1, G4Material * Mat2, G4double d1, G4double d2, GVFlashSamplingShowerTuning * aPar = 0);