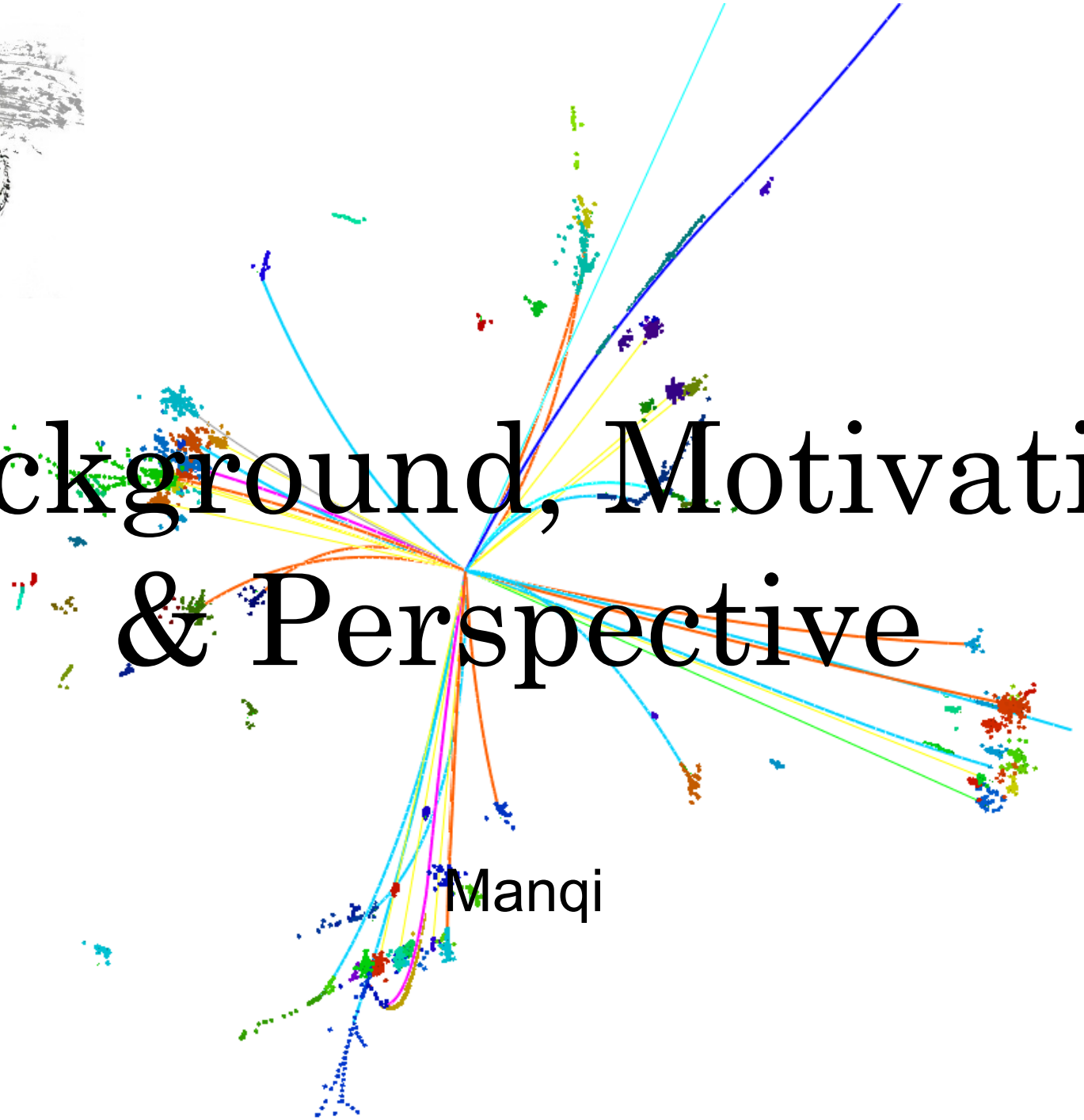
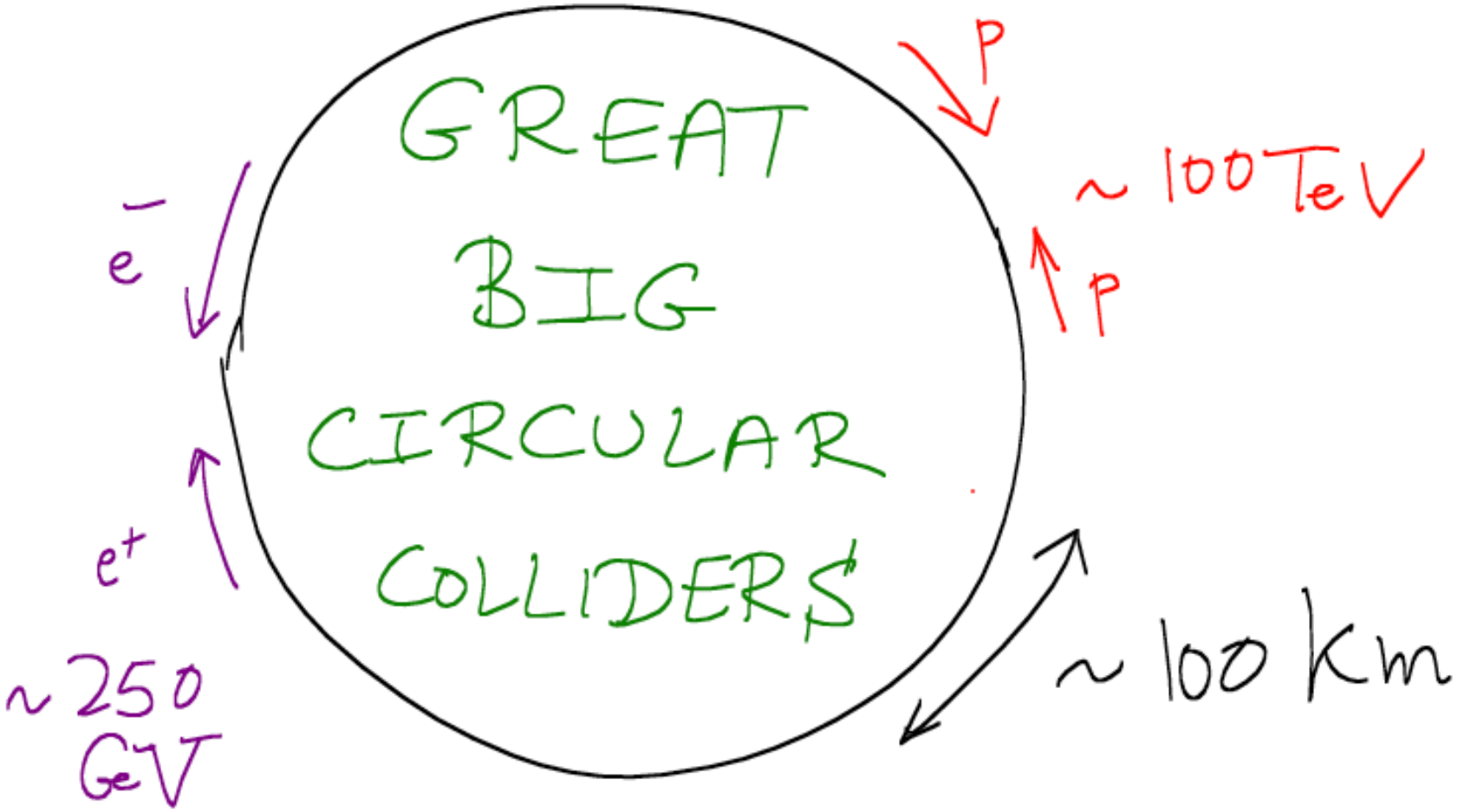


Background, Motivation & Perspective

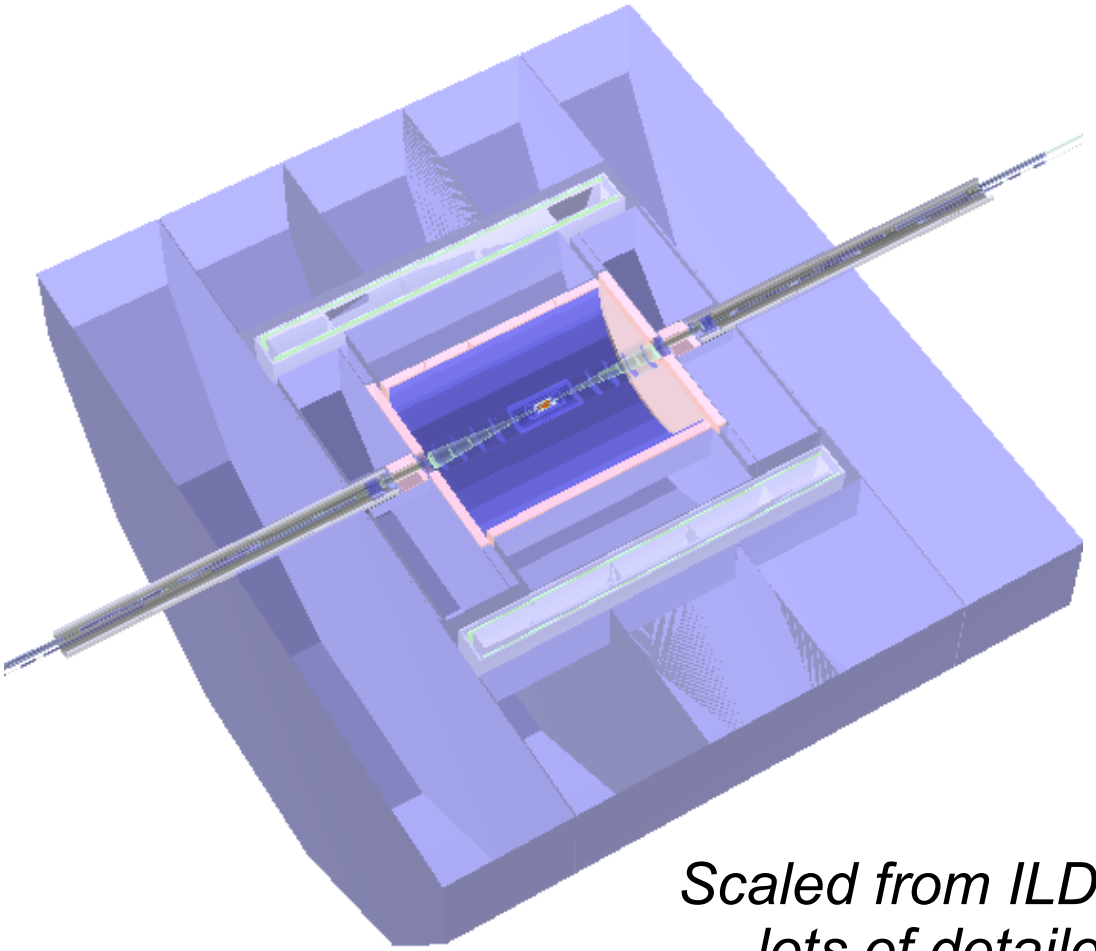
Manqi

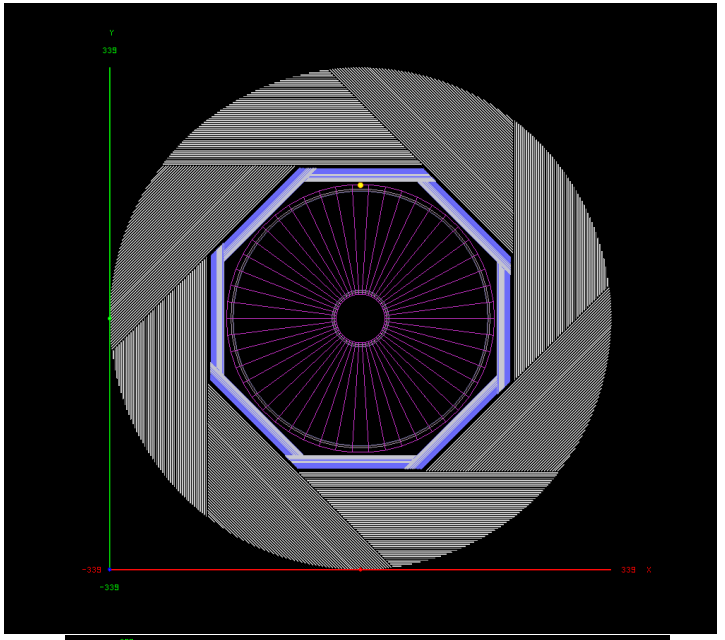


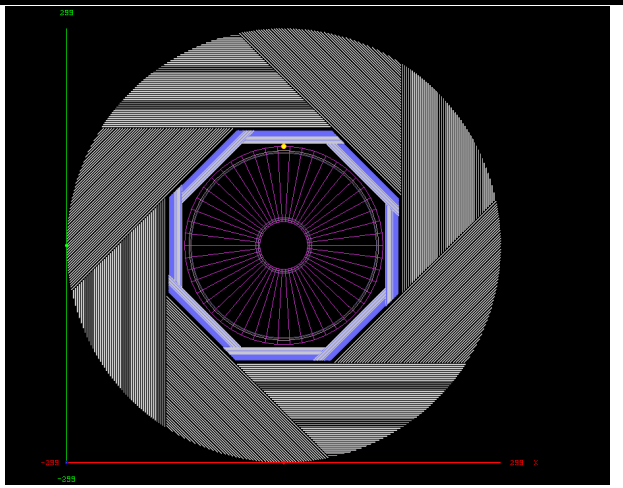
Precise measurement & Direct probe:

Higgs, Z & W, SM, SUSY, Exotic...

Current CEPC detector: ILD_v2

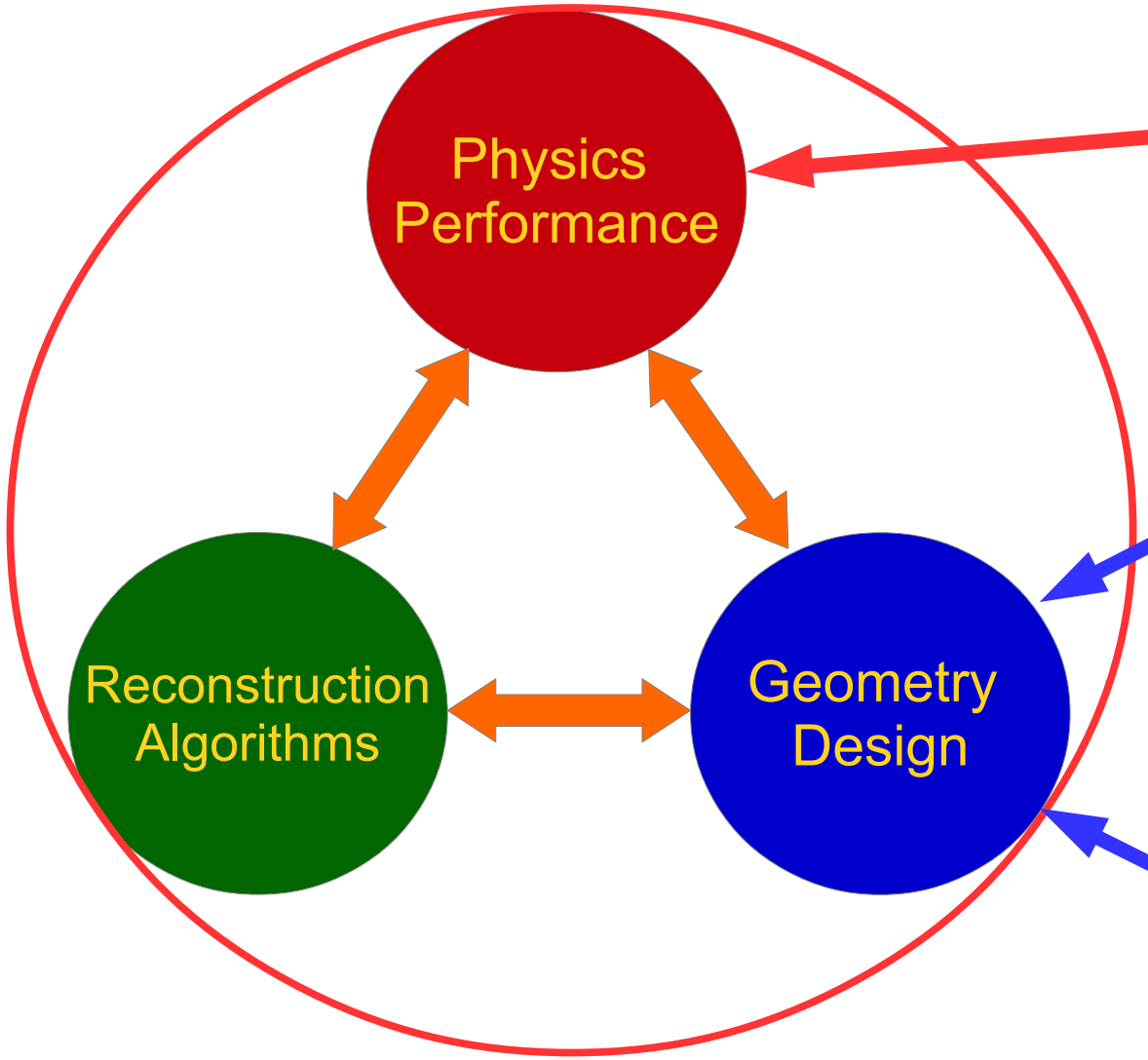






Scaled from ILD; but lots of detailed design should follow

Detector design: Basic ingredients



Physics Objectives:
Precise measurement of a SM Higgs,
Z, W, top measurements,
New Physics Hunting...

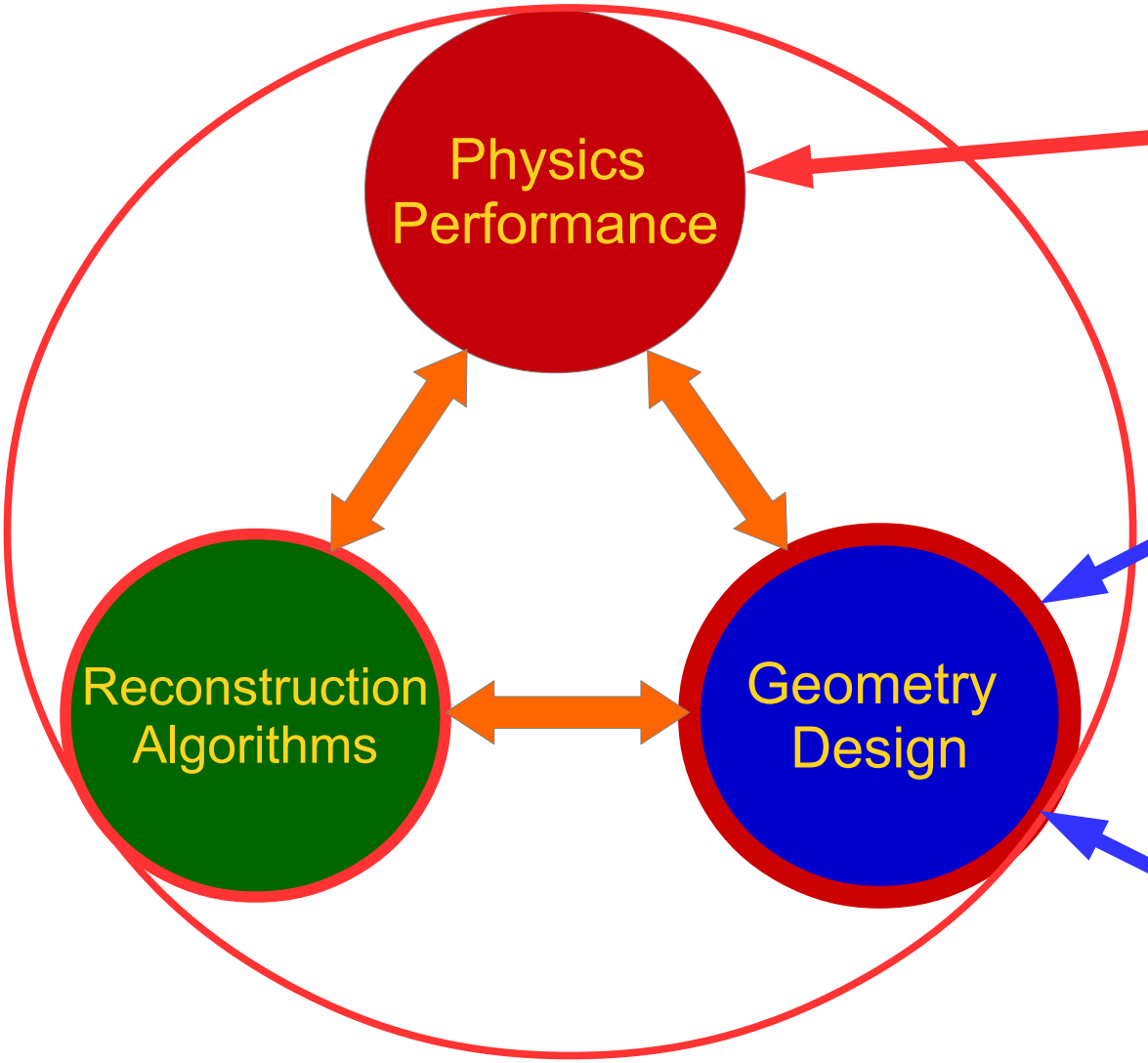
Technology:

Sub Detector R&D
Sensor, electronic,
Mechanism, DAQ,
Integration, ...

Beam condition:

Luminosity & Beam quality
Machine constrains,
MDI design...

Dedicated Simulation & Reconstruction: Indispensable to optimized design



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Machine constrains,
MDI design...

Perspectives

- You will
  - Gain basic version on CEPC Physics, detector concerns & reference geometry;
  - Learn basic usage of CEPC software;
  - Learn Geant 4: usage, geometry editing & exercises
  - Understand the current ILC-CEPC Simulation framework, Mokka:
    - Architecture, Dependence, standards & data base
  - Loots of exercises
- You will be able to
  - **Edit sub-detector geometry to the source code level, and integrate into the Mokka framework**

Discussion → Road Map

- Master the key technologies in current ILC Software
- Perspective of Future CEPC Software framework
  - Simulation
  - Reconstruction
- Task sharing & Cooperations

Welcome & Enjoy!