



Top Physics Analysis for Future Circular Colliders

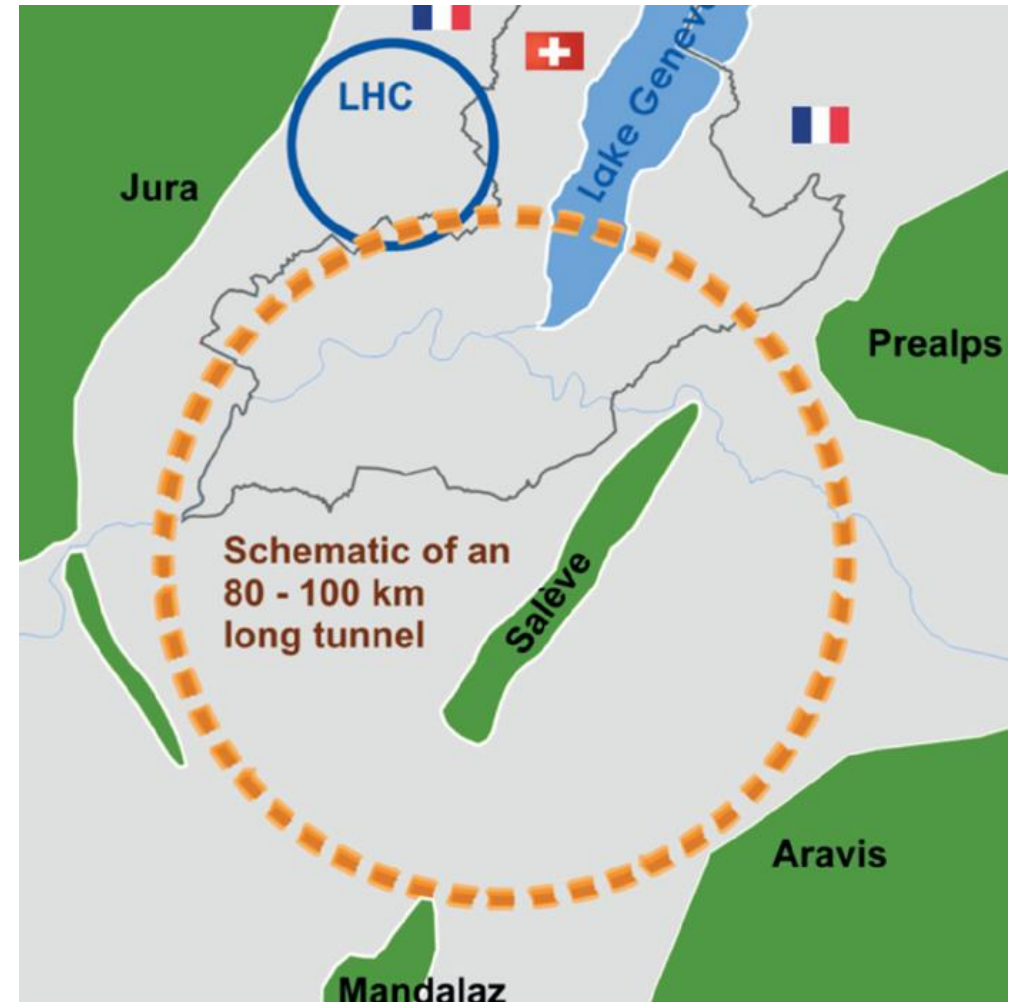
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Future Circular Collider (FCC) Study

- Build an 80-100 km tunnel to host new collider(s)
- Design CM energy will be 100 TeV
- Higher energy means new physics, new hardware, and new challenges



My Project - Top Physics at the FCC

- FCC-hh would be a top quark factory
- Large statistics allow precise determination of top quark branching ratios and other properties of the top quark as probe to new physics
- Currently working on final touches to interfacing between Monte-Carlo event generators (MadGraph 5, Pythia 8, Delphes) and generating enough statistics to perform analysis
- Simulations will be benchmarks for FCC detector design
 - Eta coverage
 - Calorimeter thickness

On the Menu



On the Menu



- Finalize interfacing
- Generate statistics
 - $p p > t t^{\sim}$ signal
 - $p p > q q$ background
- Use simulations to define detector parameters
 - Eta coverage
 - Calorimeter thickness
 - Everything else...time permitting

Funtime Photos

