

# $H \rightarrow \gamma\gamma$ @250 GeV, 500 and 1000 GeV

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January 31, 2014

## Improving Isolation Requirement

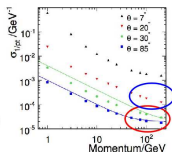
- Implementing Junping TMVA based isolated particle tagger on my code.
  - I want using these tools to:
    - Require isolated photons in the final state.
    - Veto isolated leptons in the final state.
- I am still working on this topic.

## Revisiting Tracking Resolution

- I am checking my code for momentum resolution.
- Interested on performing studies on detector optimization.
  - Suggestions about specific things to check are welcome.
- For instances, from Jenny's talk on last ILD Analysis/Software Meeting:

### Momentum Resolution

- **Resolution in barrel:**
  - could we shrink TPC?
  - with or without increasing the B-field?
- **Degradation at small  $\theta$ :**
  - starts when tracks hit endplate
  - TPC length / aspect ratio



=> Physics arguments?

## Status

- Implementing TMVA based isolated particle tagger.
- Checking my previous momentum resolution studies.
  - I would like to perform detector optimization studies related with tracking resolution.

## Plan

- Keep working on the presented issues.