



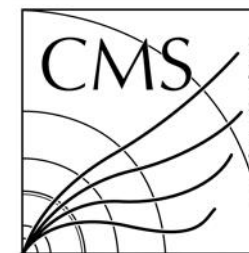
MG5 LHE Validation

Wei Shi

TAMU+RICE working meeting

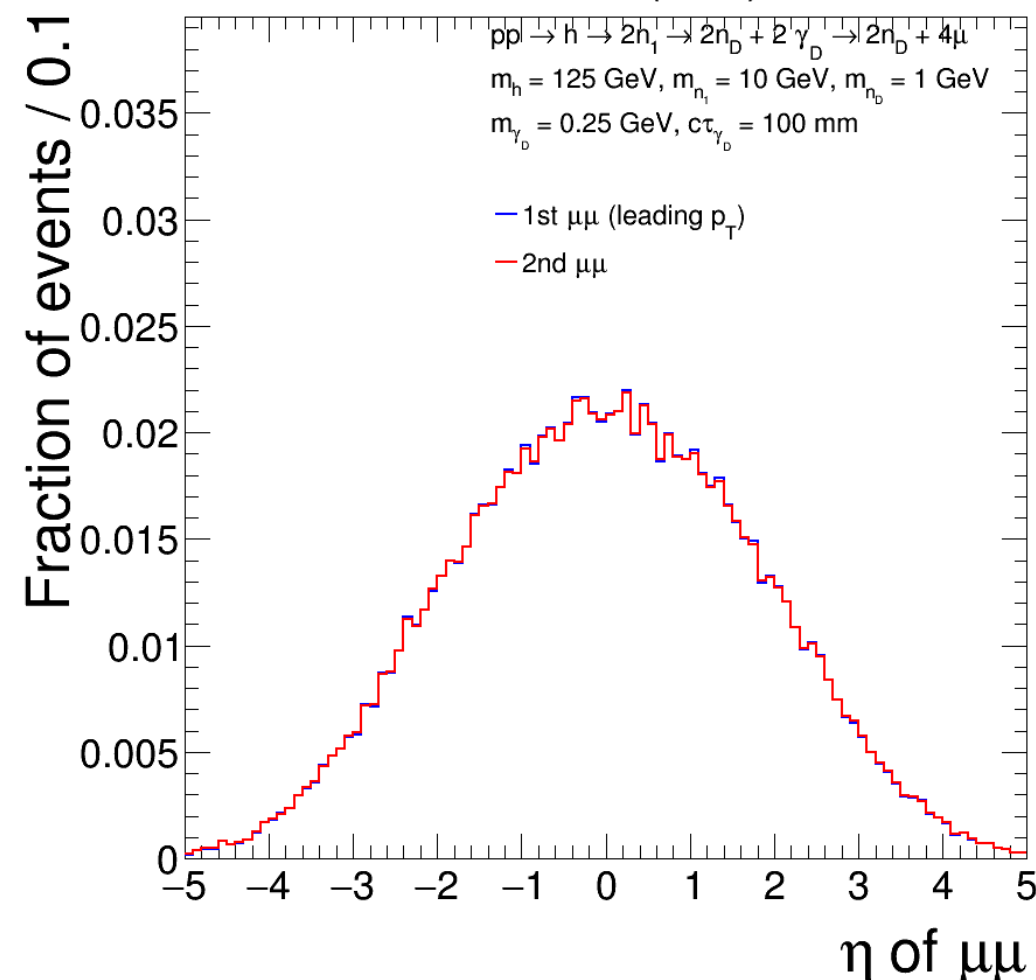
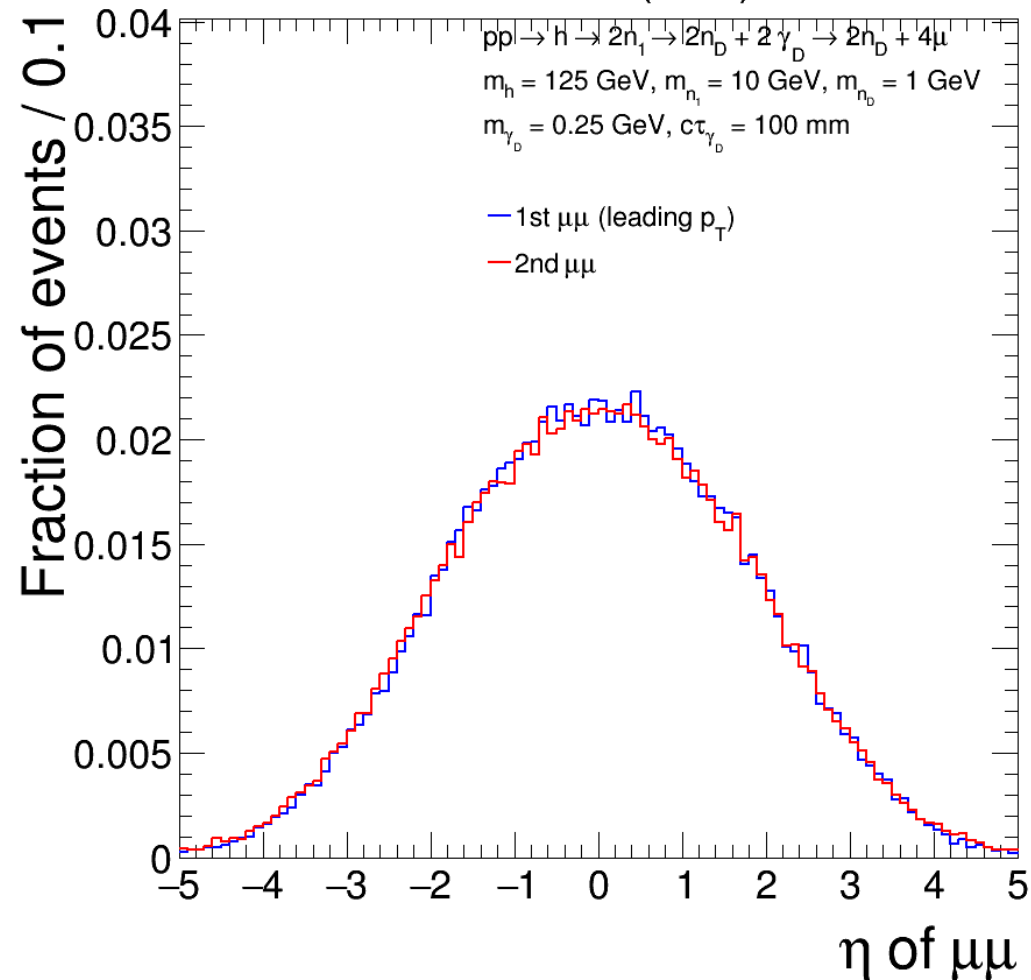
MG4

MG5

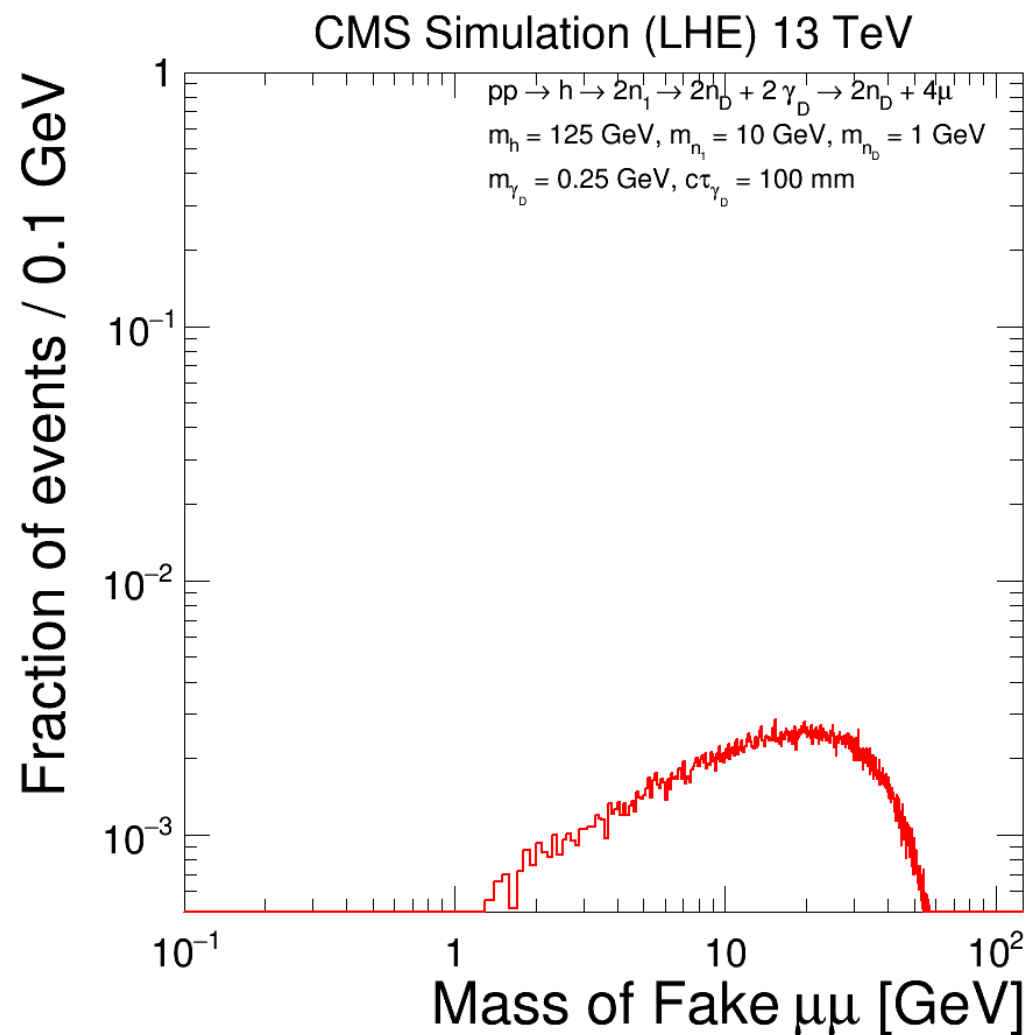


CMS Simulation (LHE) 13 TeV

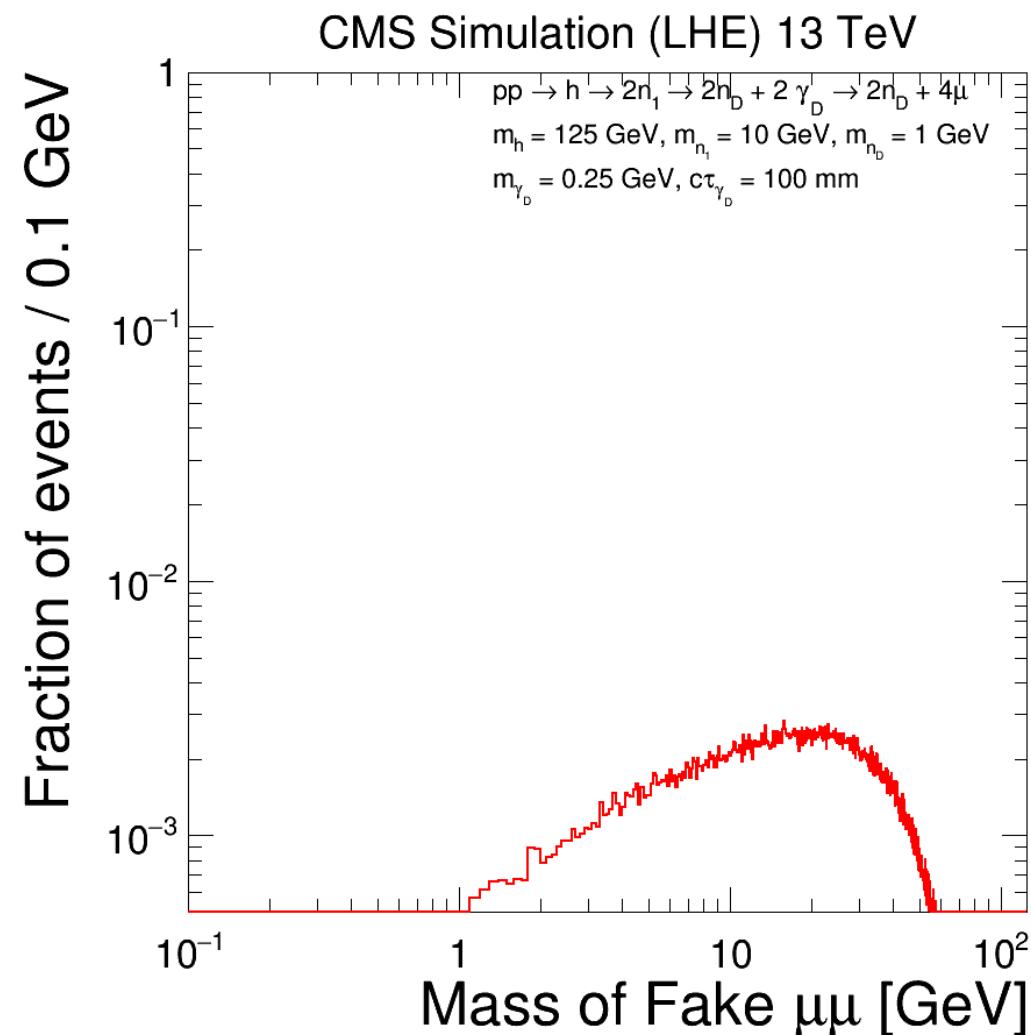
CMS Simulation (LHE) 13 TeV



MG4

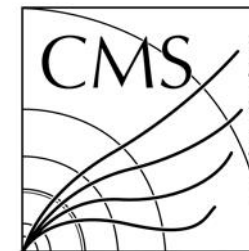


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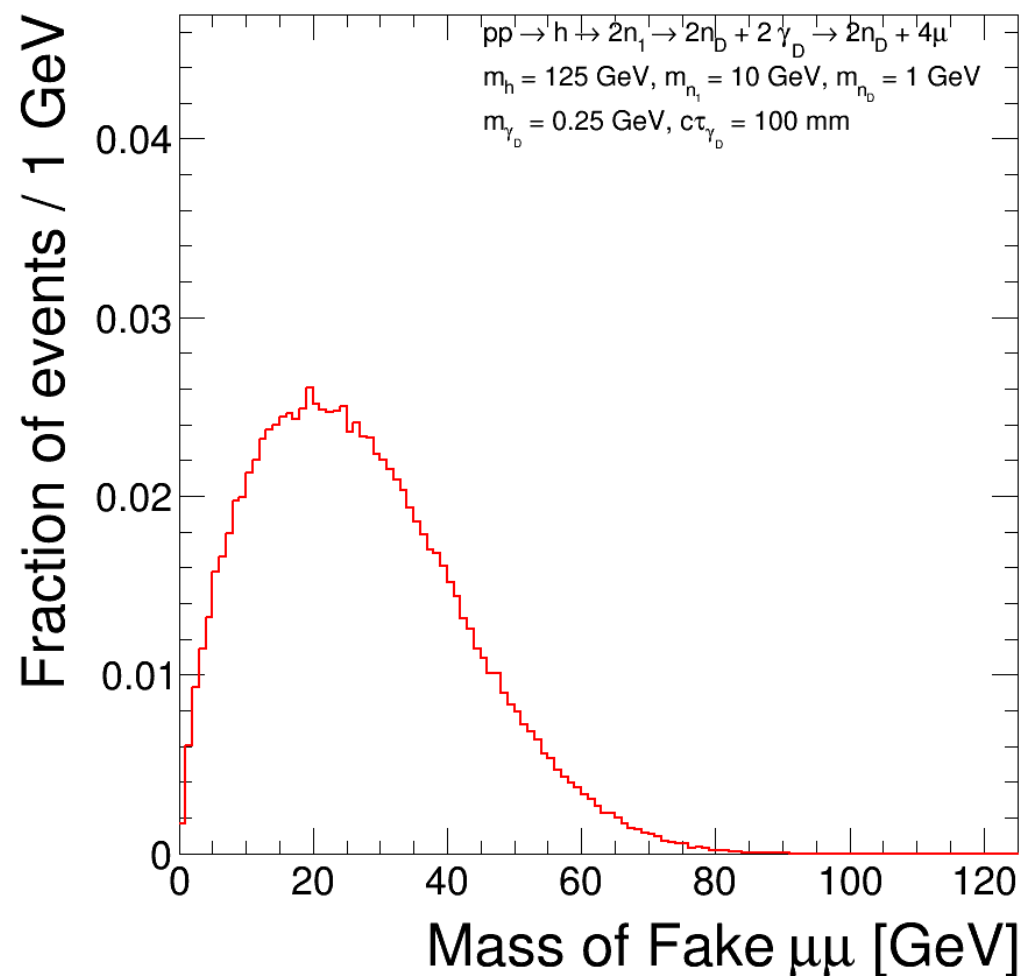


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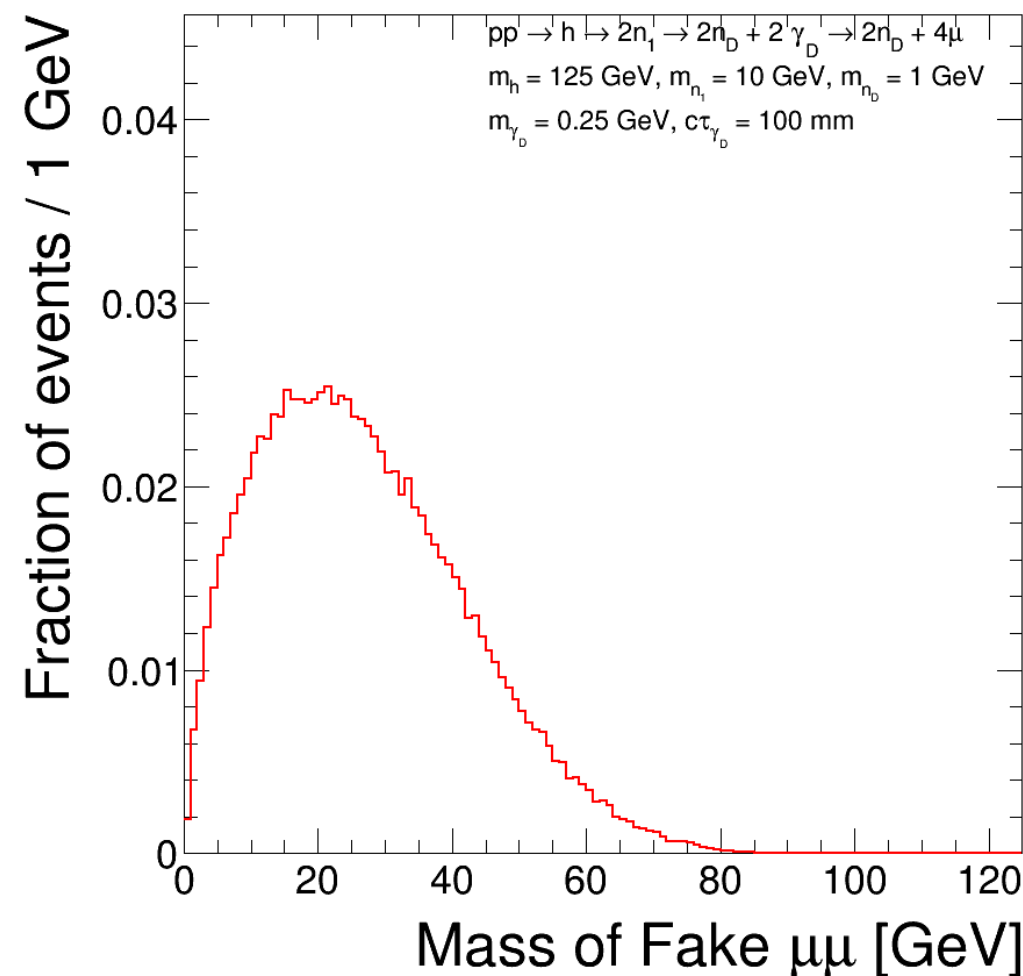
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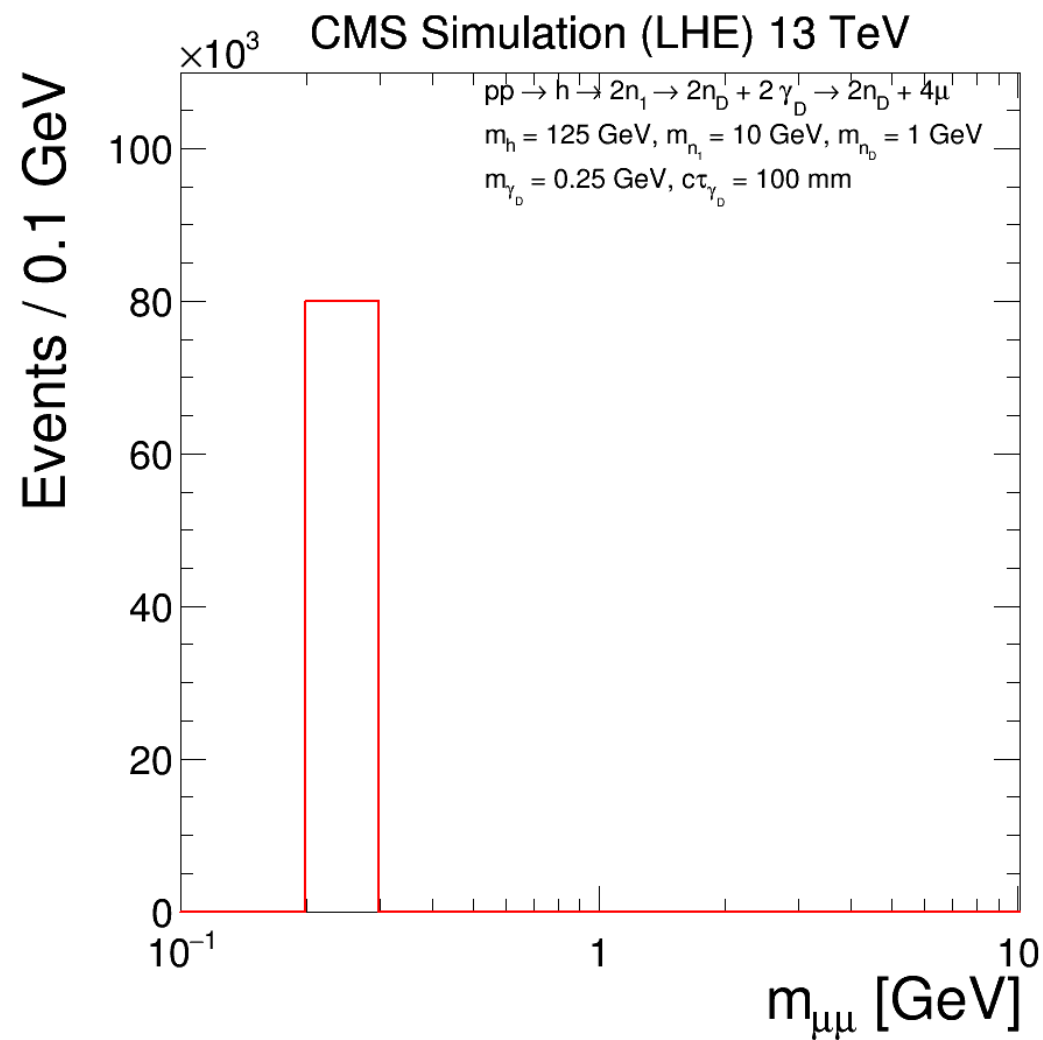
CMS Simulation (LHE) 13 TeV



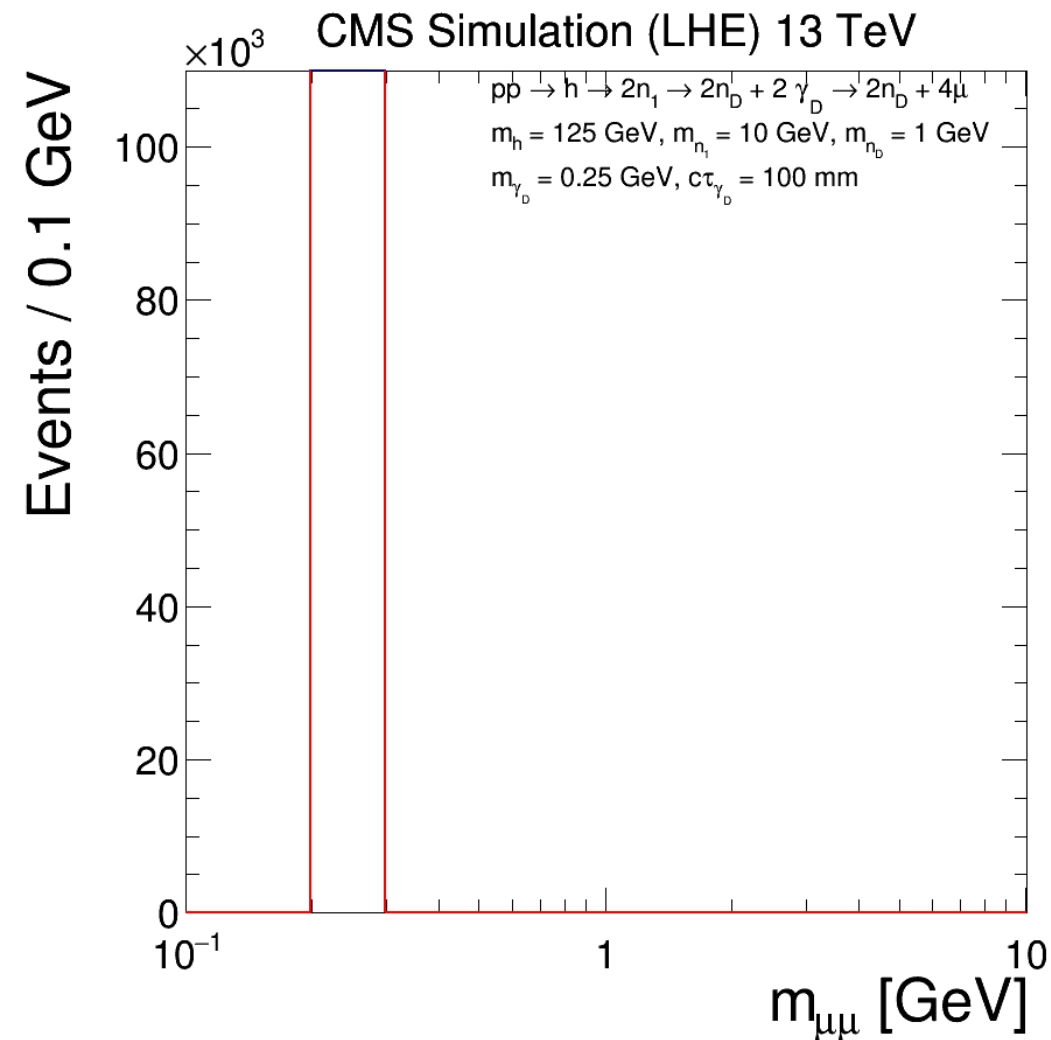
CMS Simulation (LHE) 13 TeV



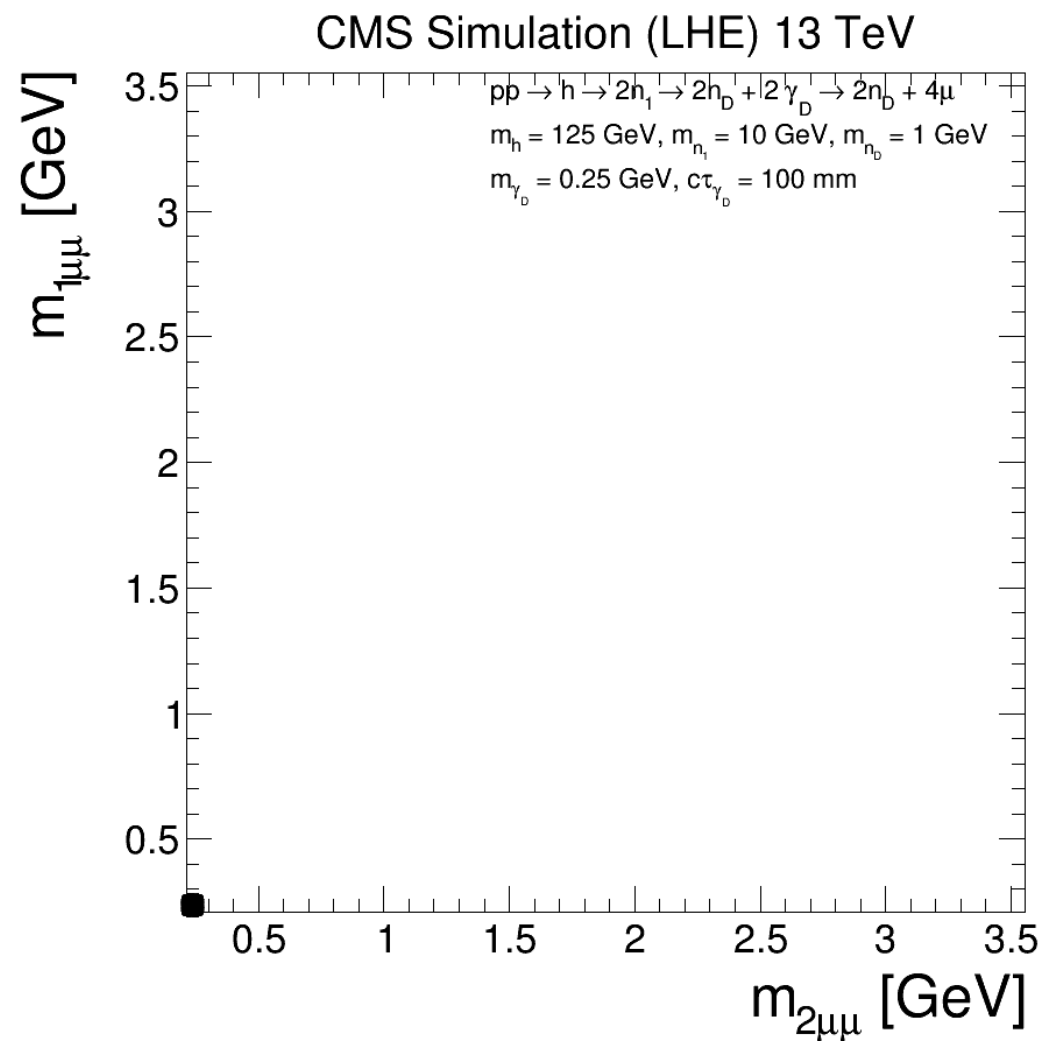
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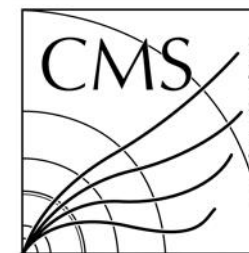
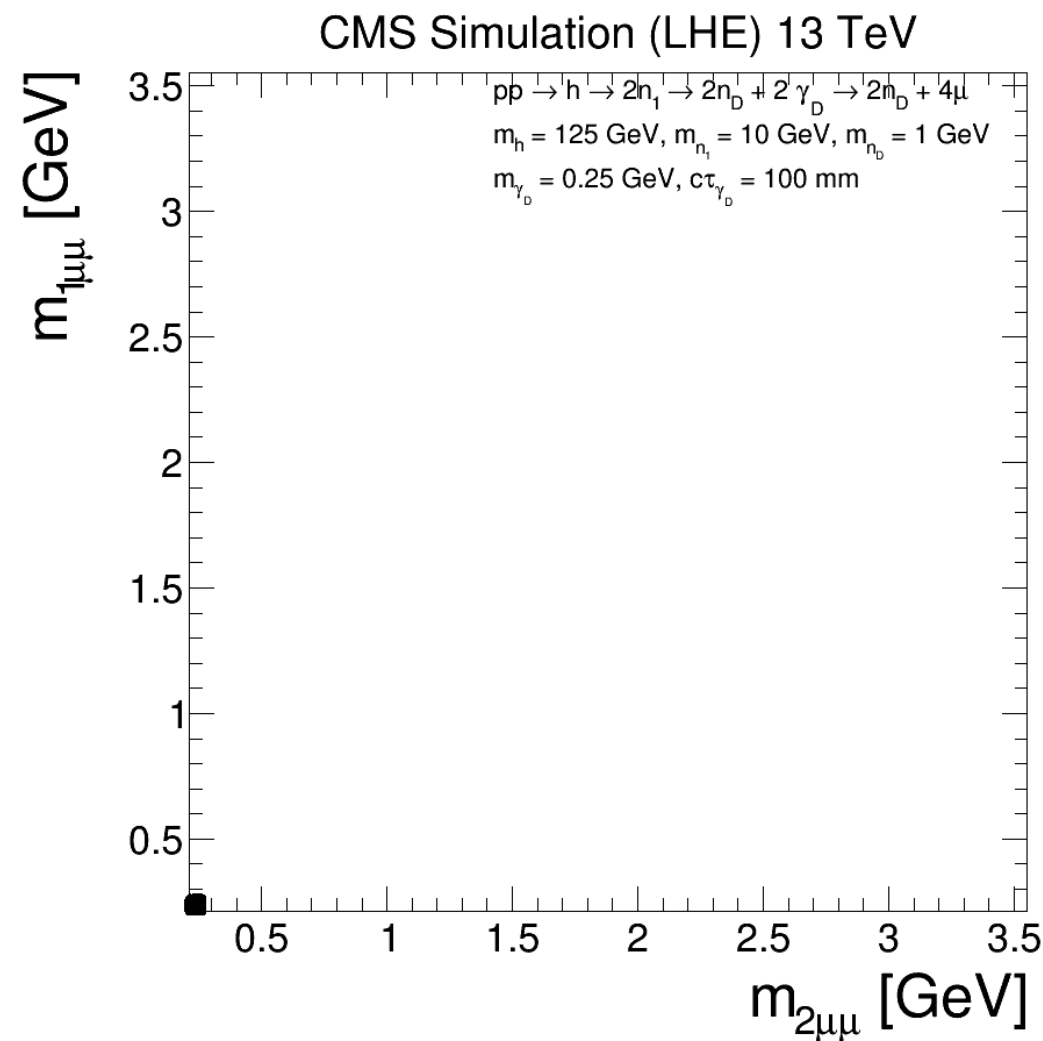
MG5



MG4



MG5



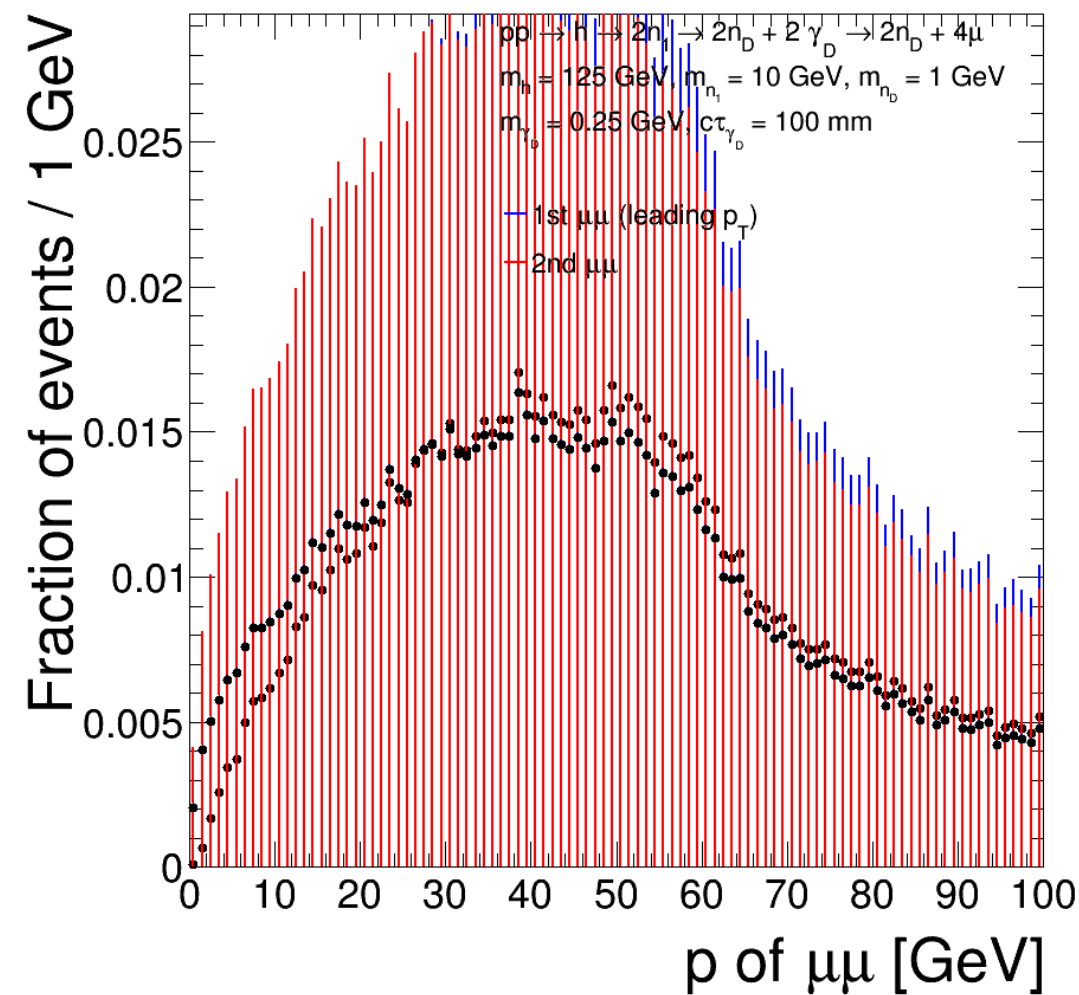
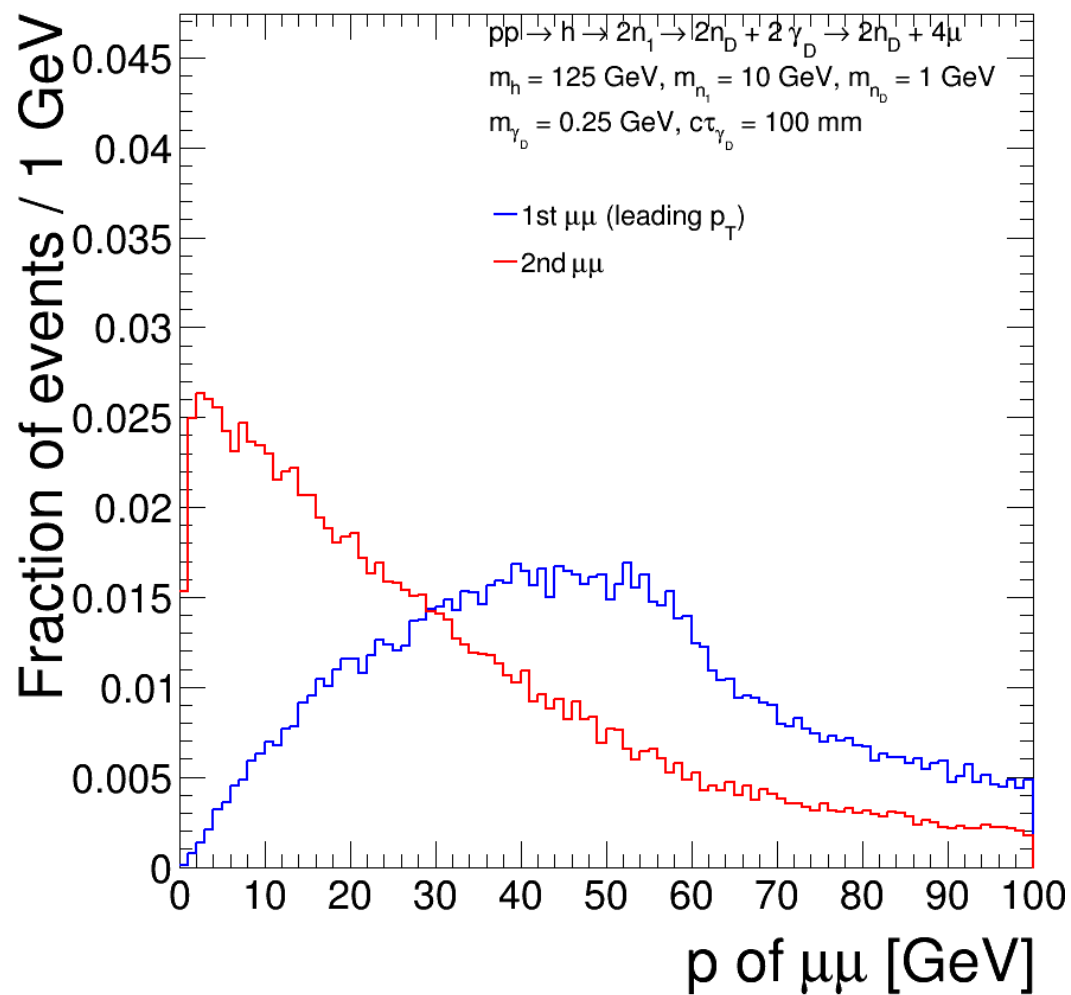
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CMS Simulation (LHE) 13 TeV

CMS Simulation (LHE) 13 TeV



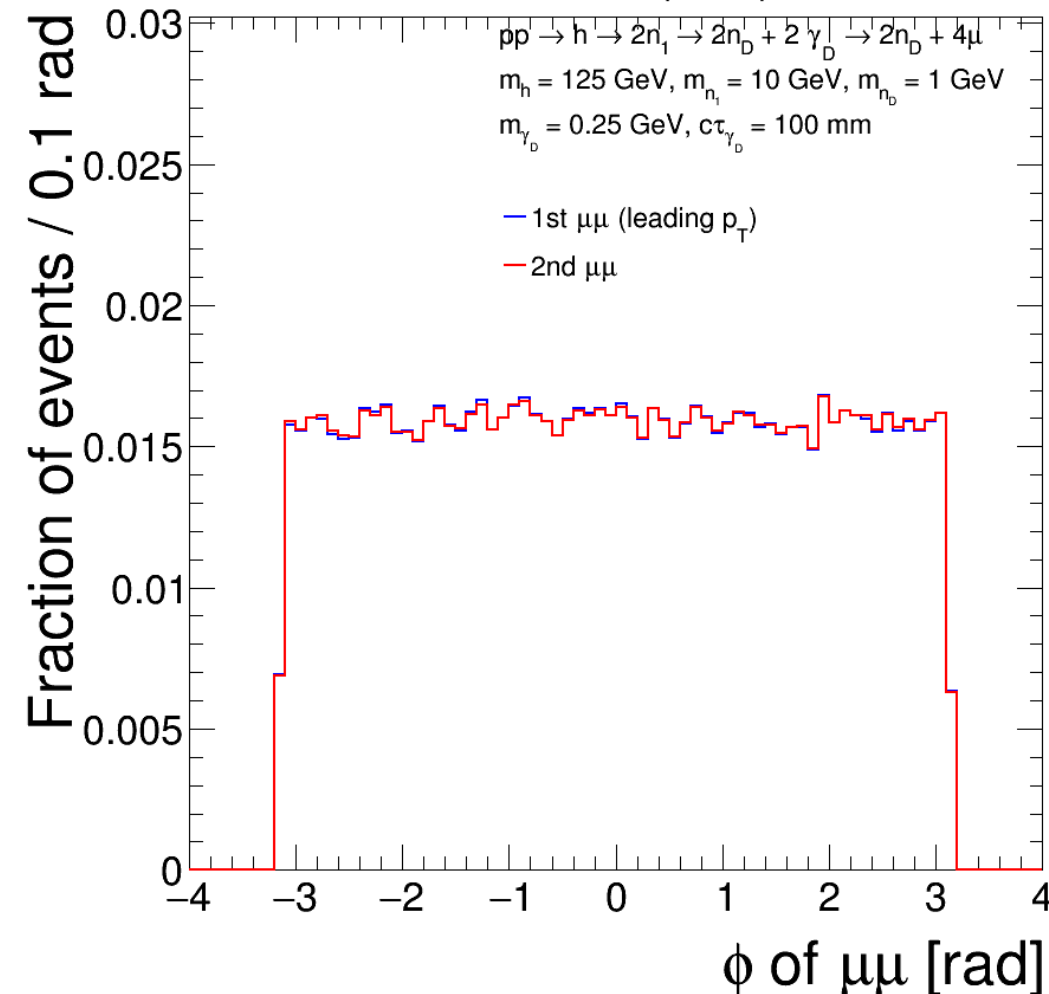
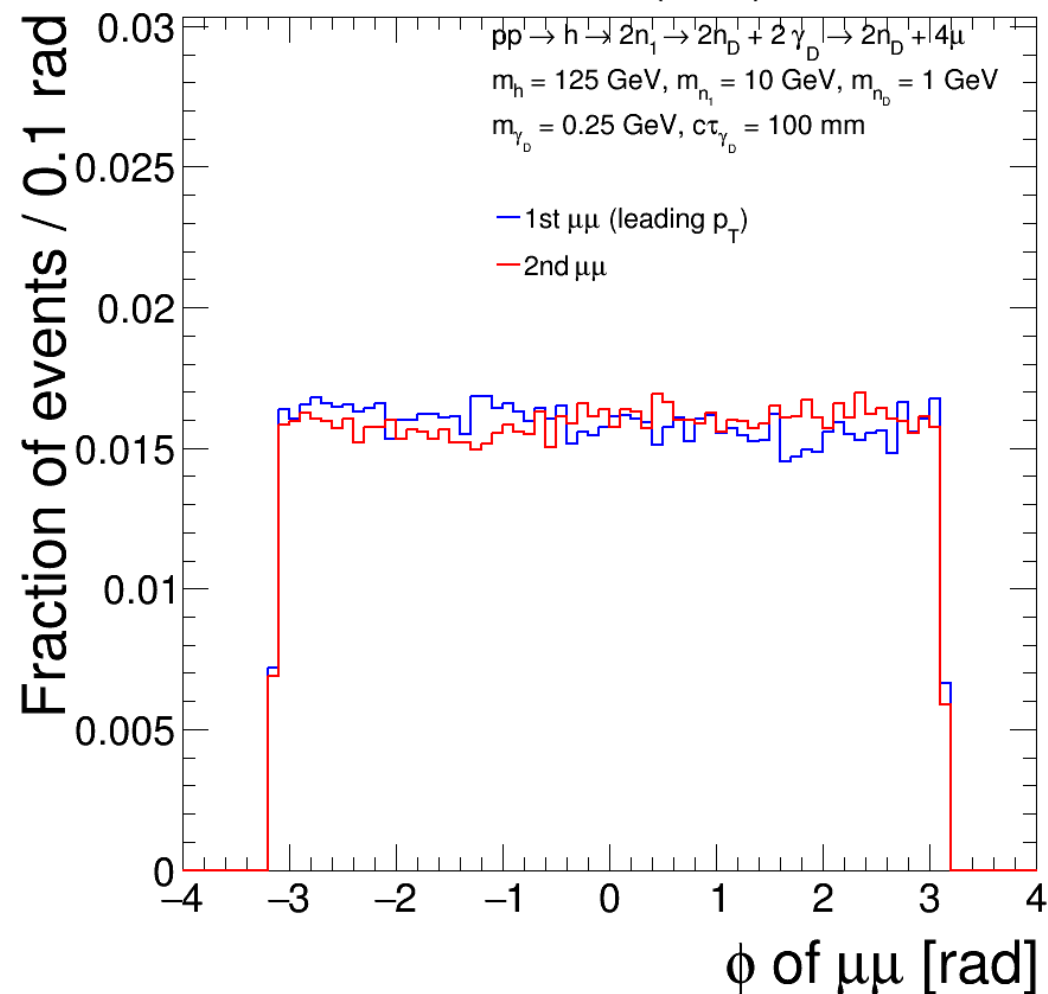
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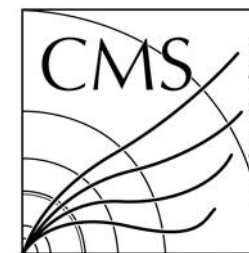
CMS Simulation (LHE) 13 TeV

CMS Simulation (LHE) 13 TeV



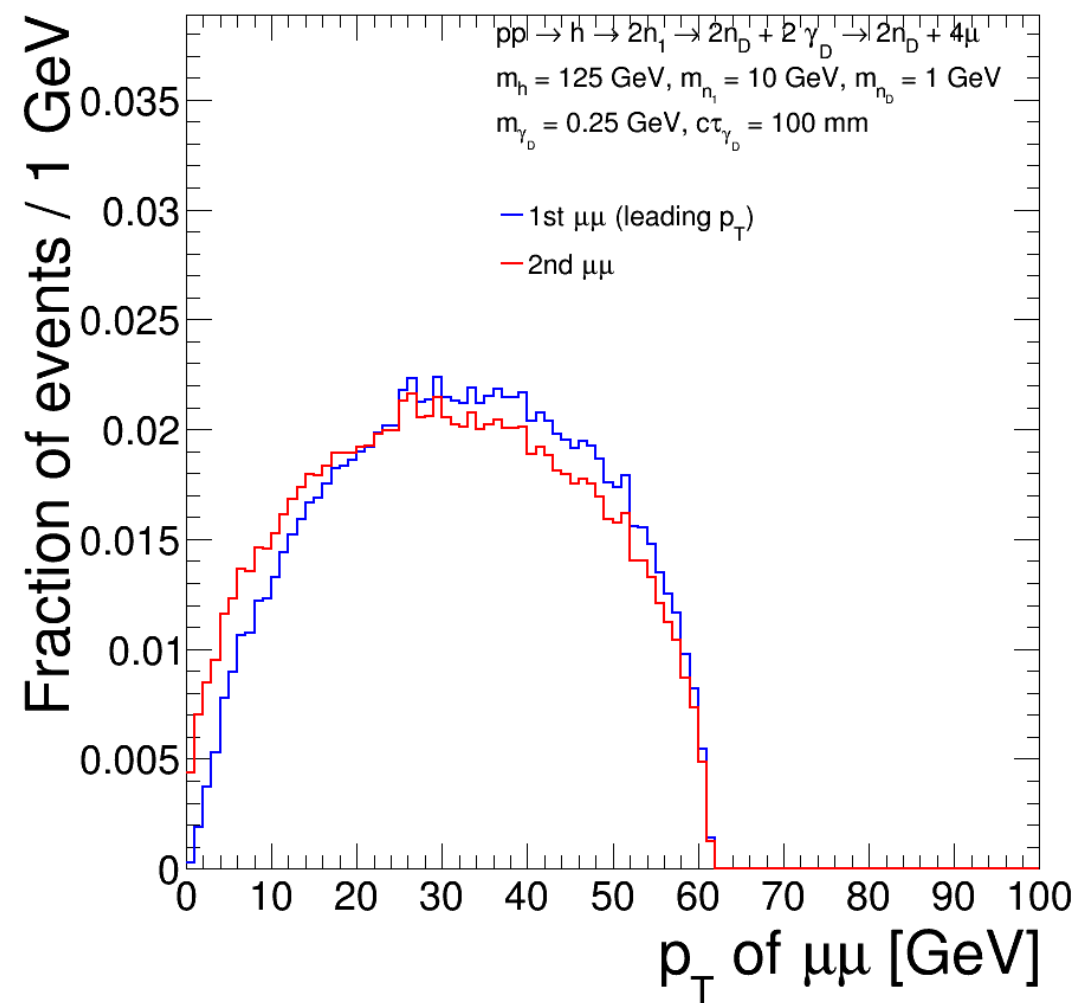
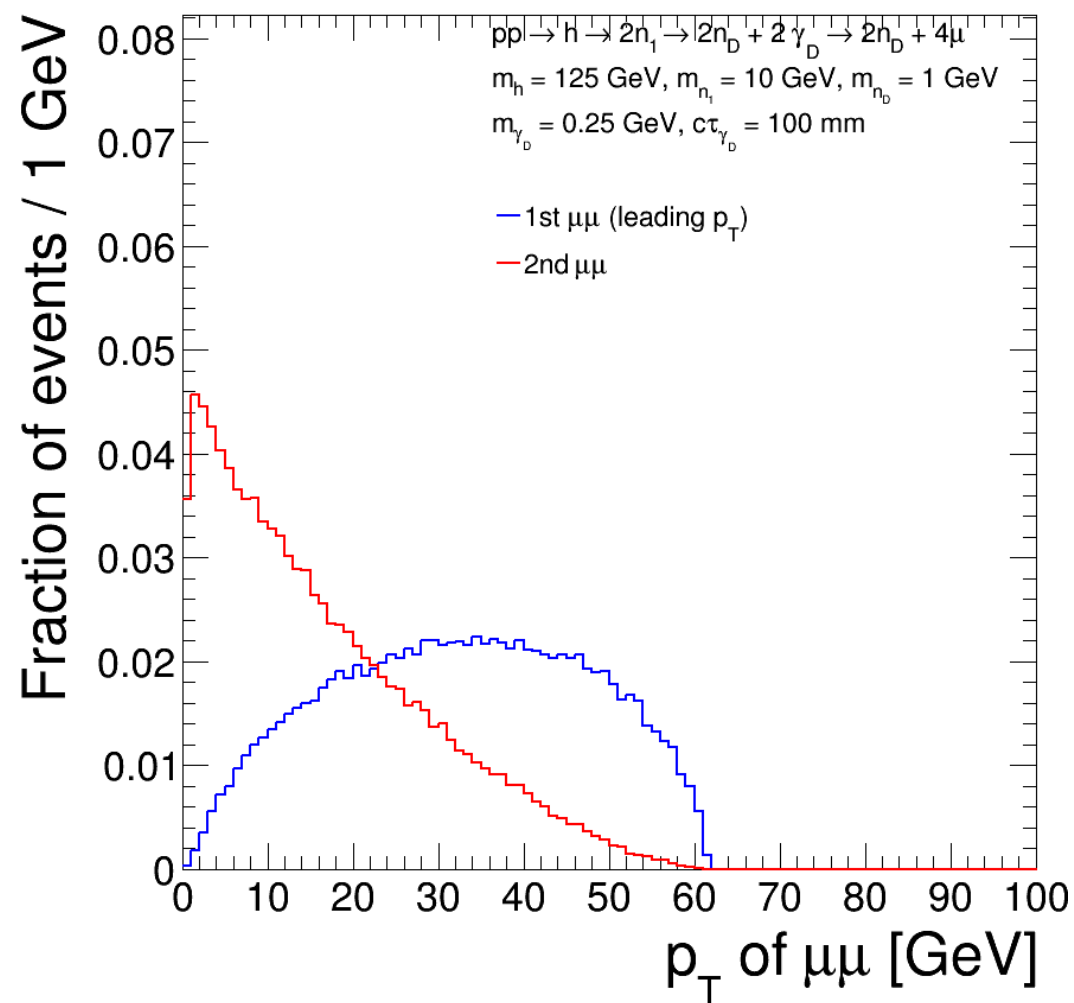
MG4

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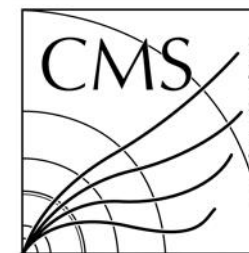
CMS Simulation (LHE) 13 TeV

CMS Simulation (LHE) 13 TeV



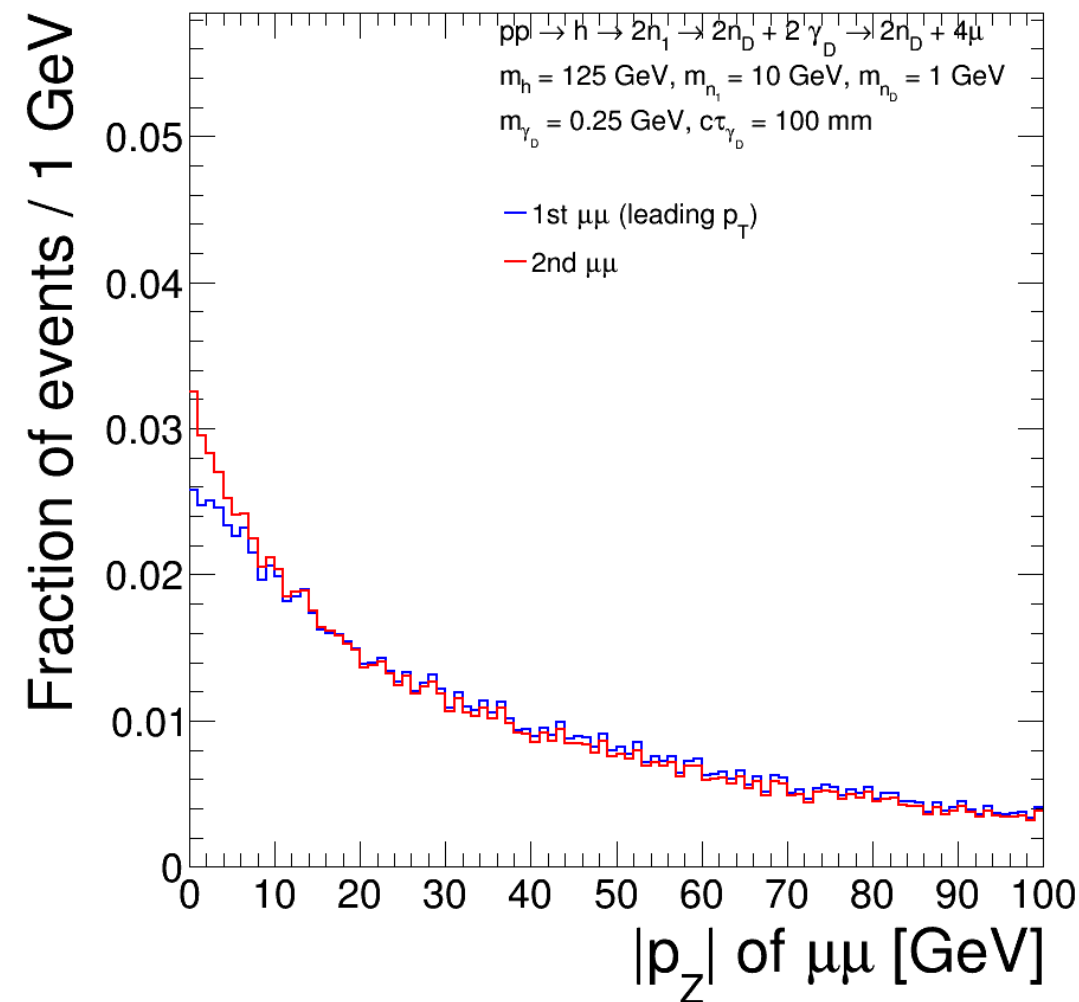
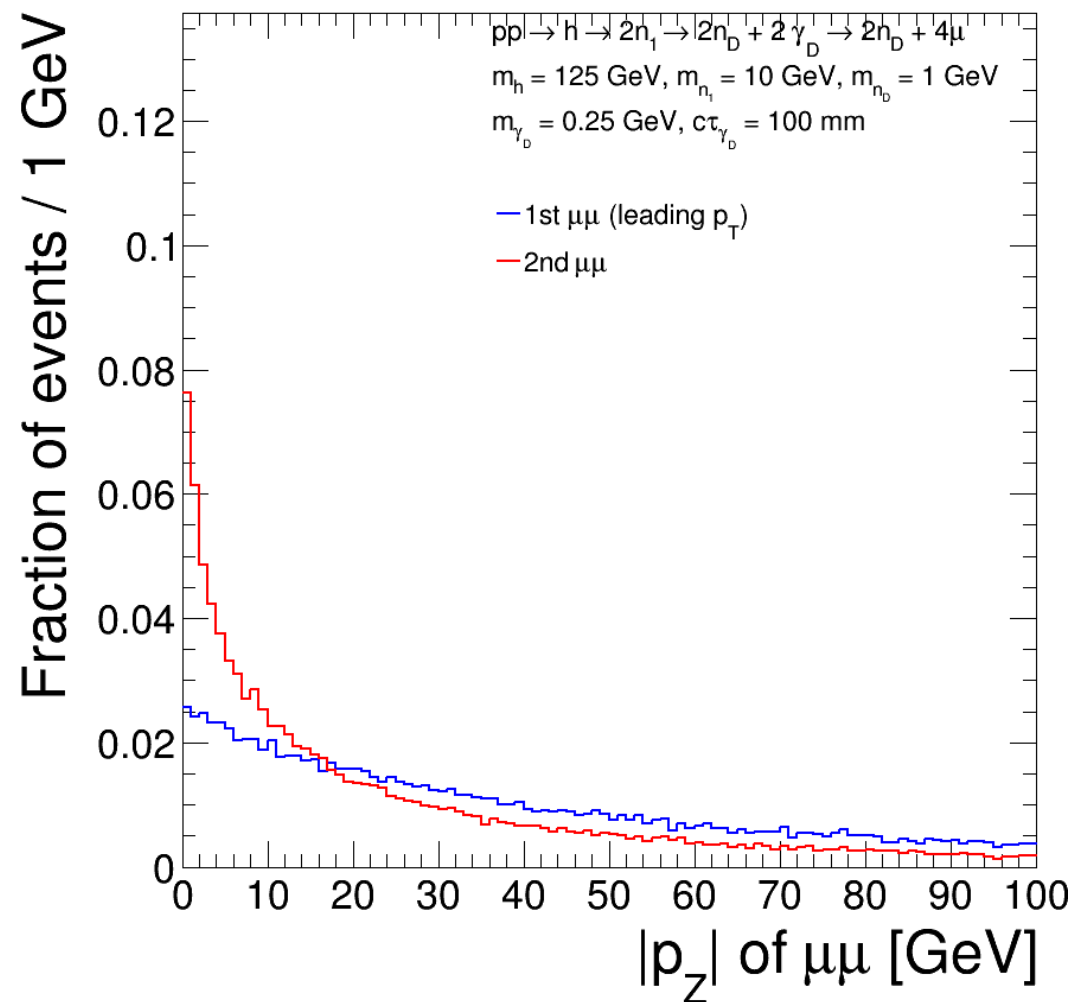
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CMS Simulation (LHE) 13 TeV

CMS Simulation (LHE) 13 TeV

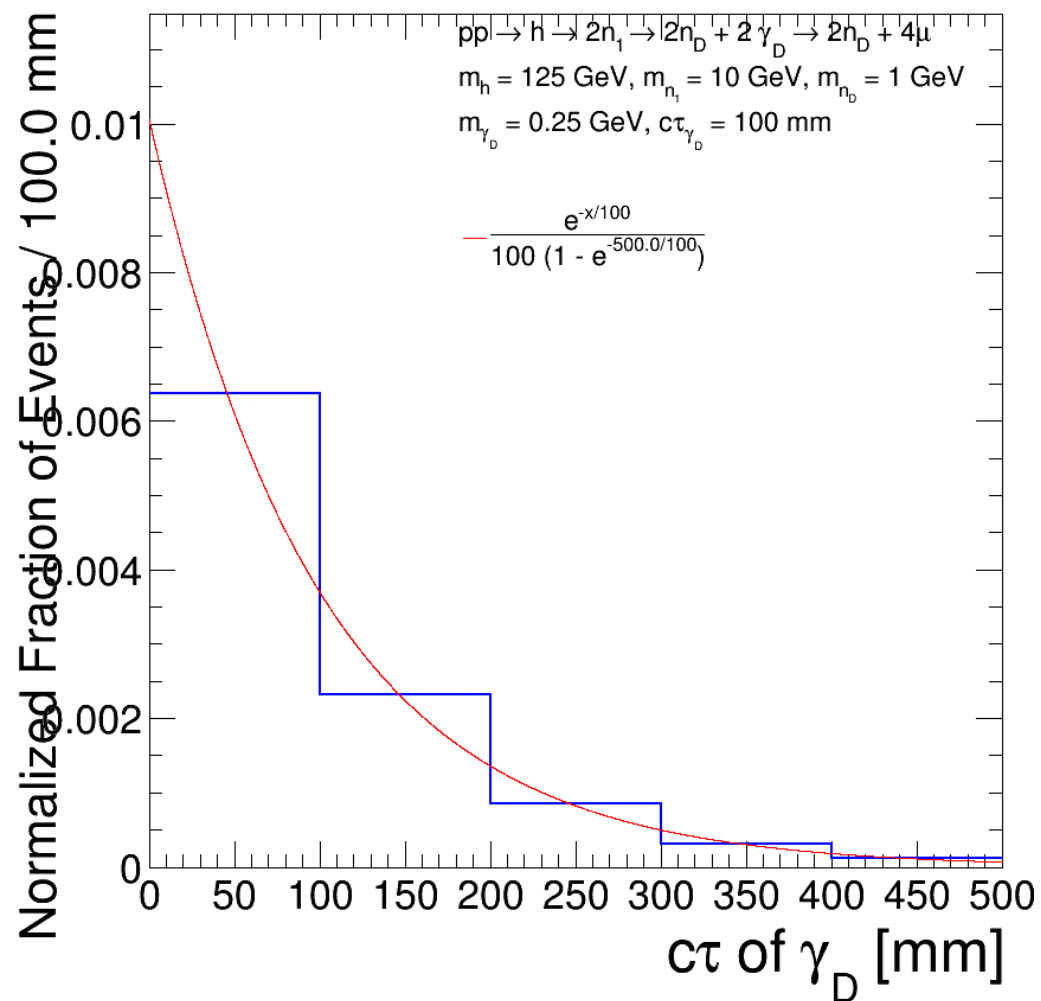


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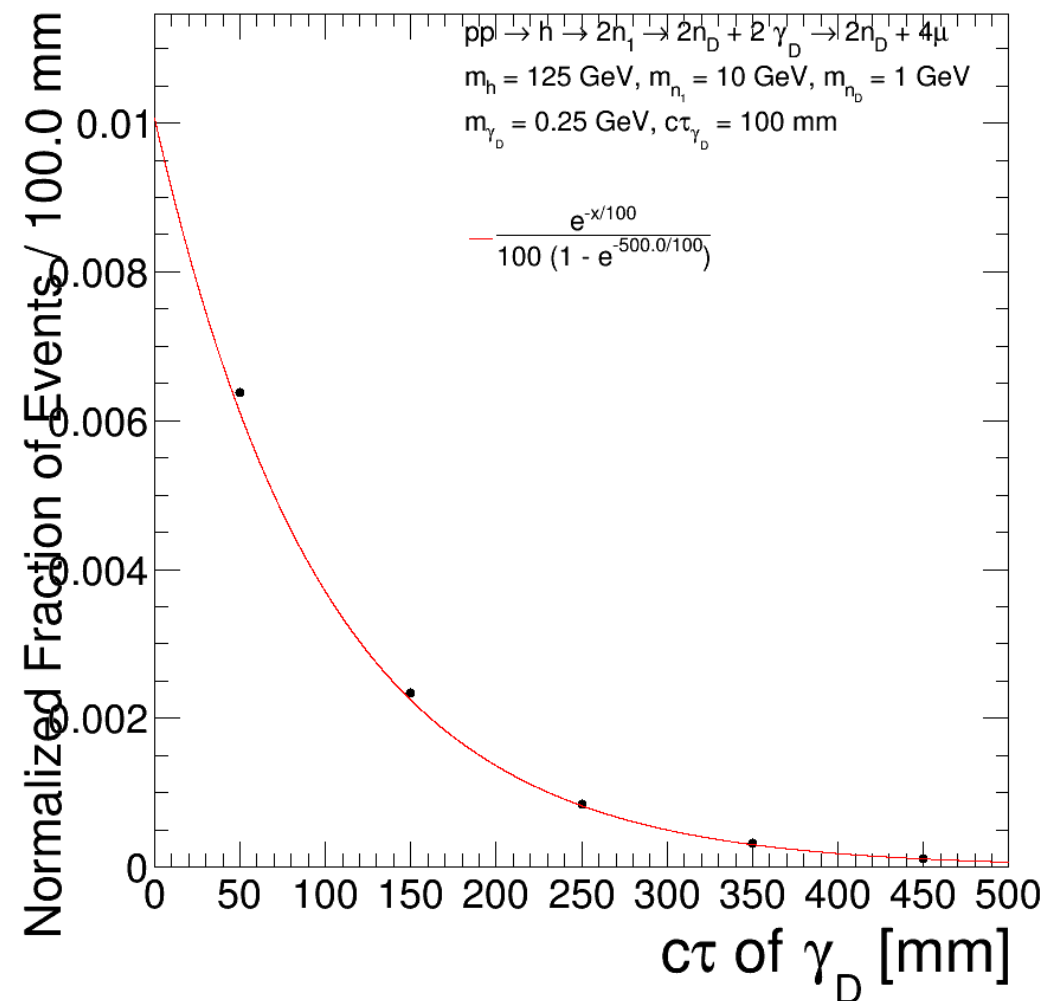
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CMS Simulation (LHE) 13 TeV



CMS Simulation (LHE) 13 TeV



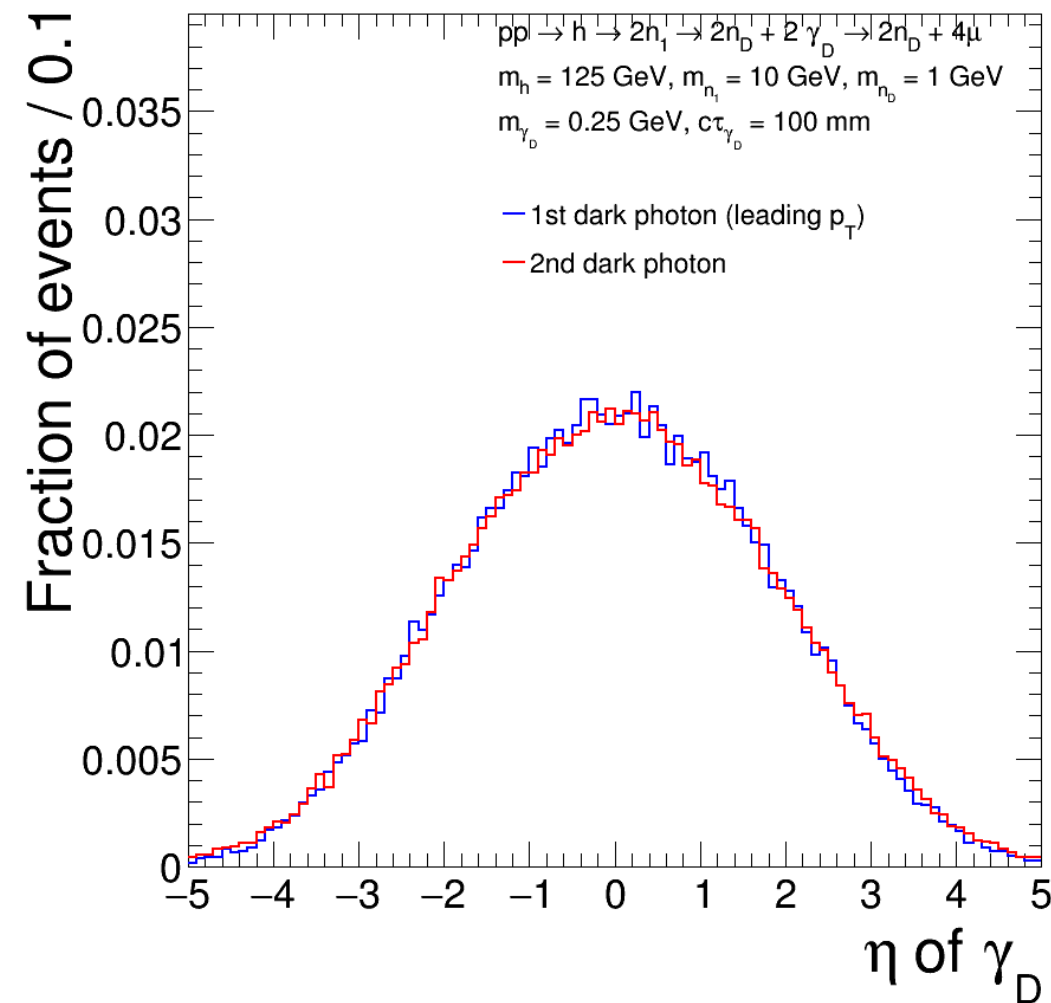
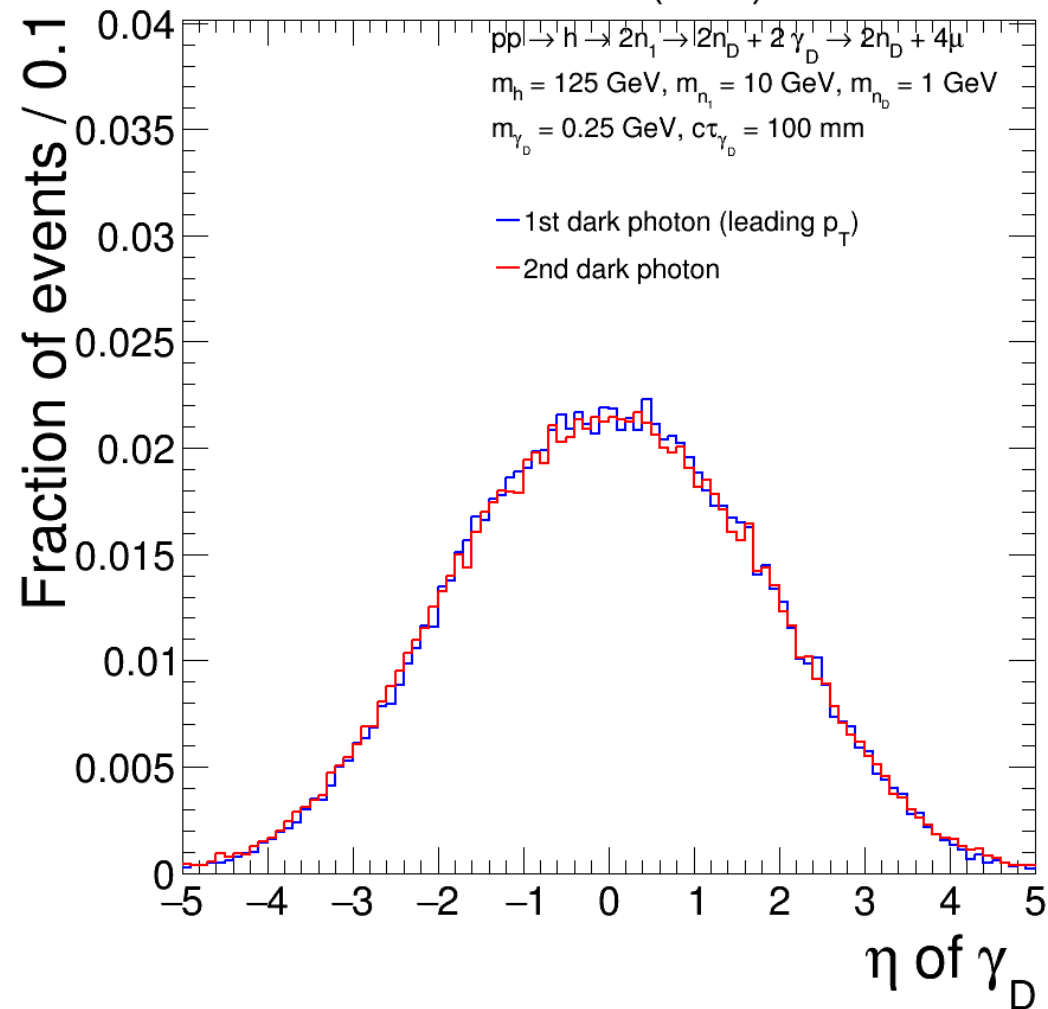
MG4

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CMS Simulation (LHE) 13 TeV

CMS Simulation (LHE) 13 TeV

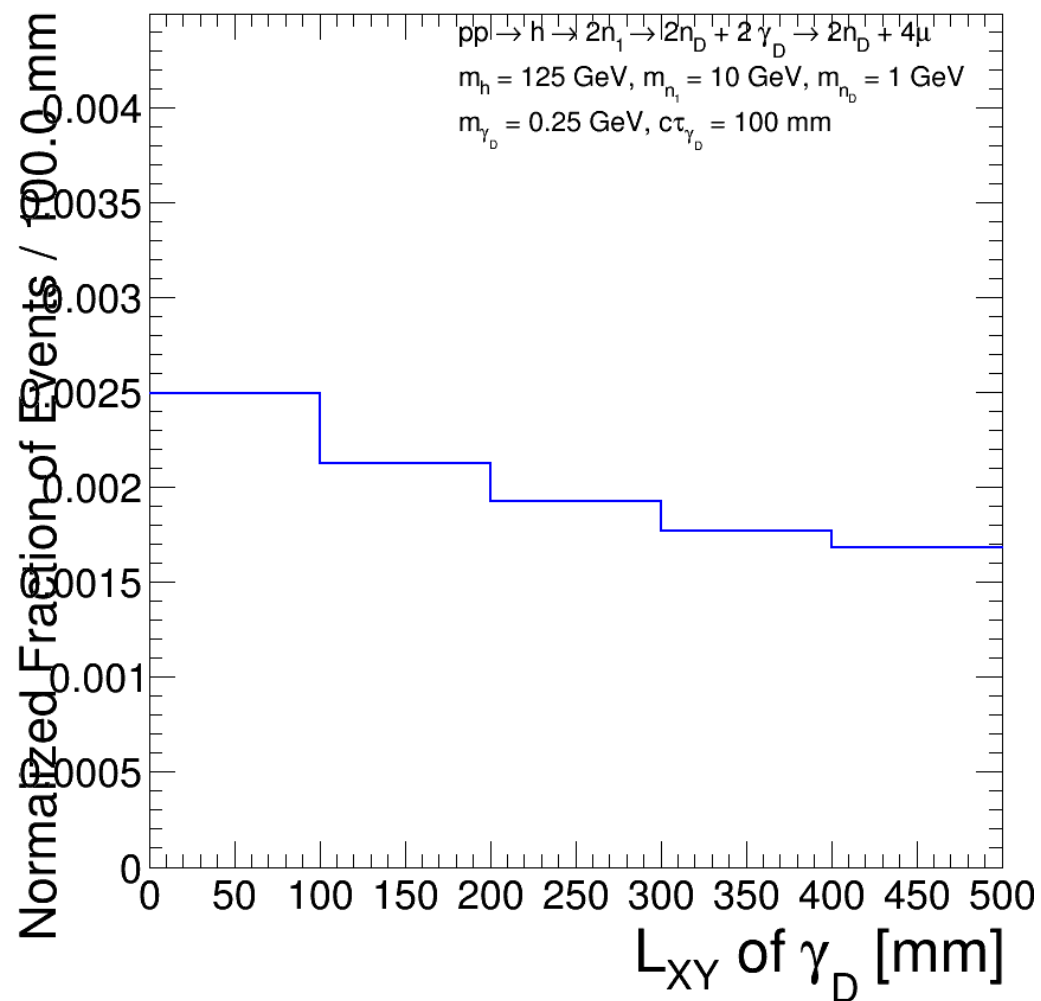


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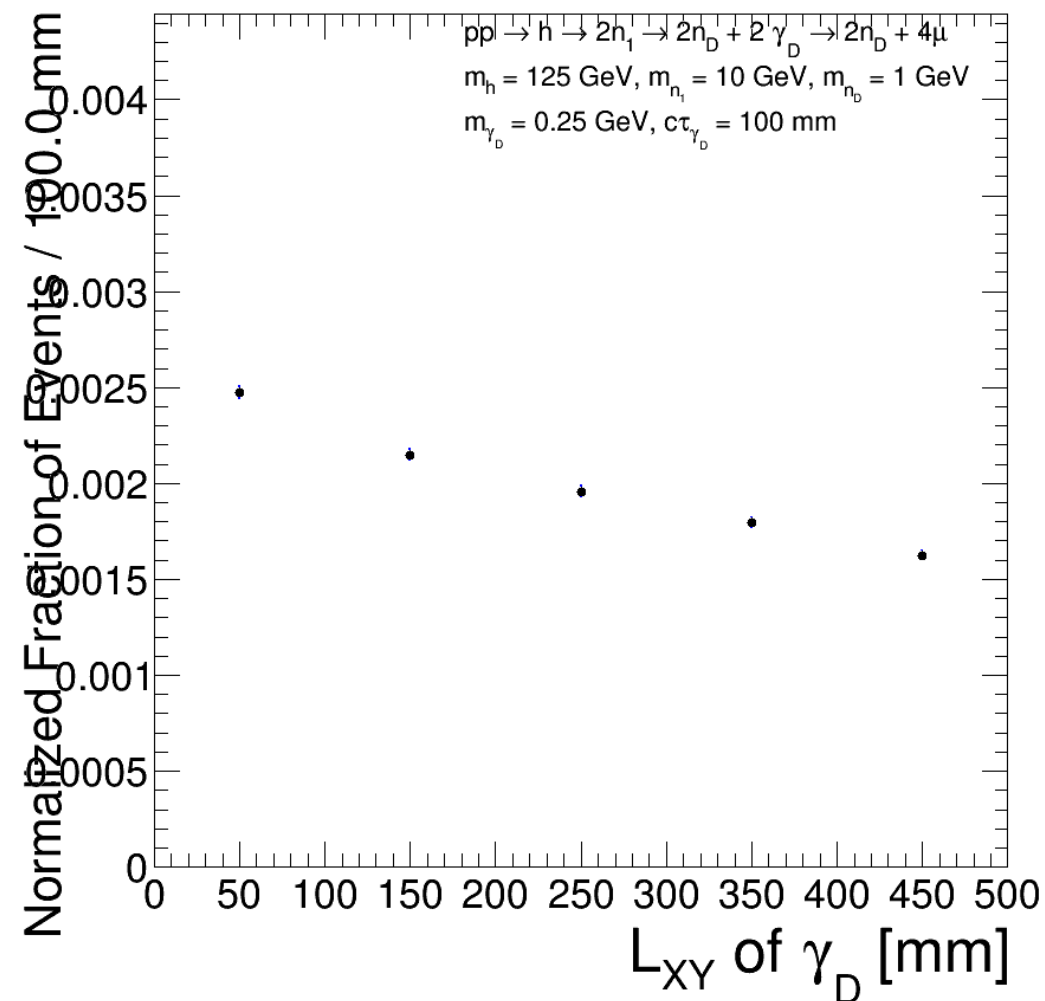
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CMS Simulation (LHE) 13 TeV



CMS Simulation (LHE) 13 TeV

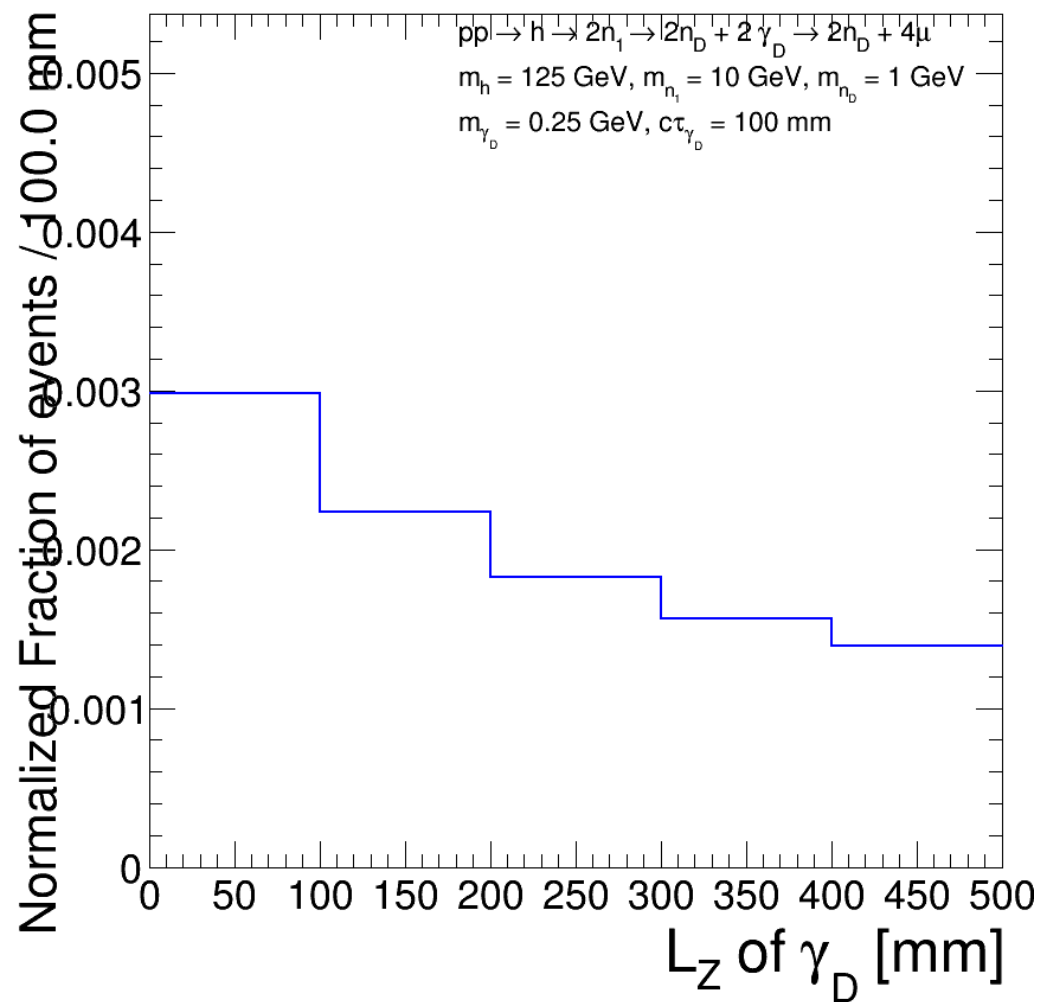


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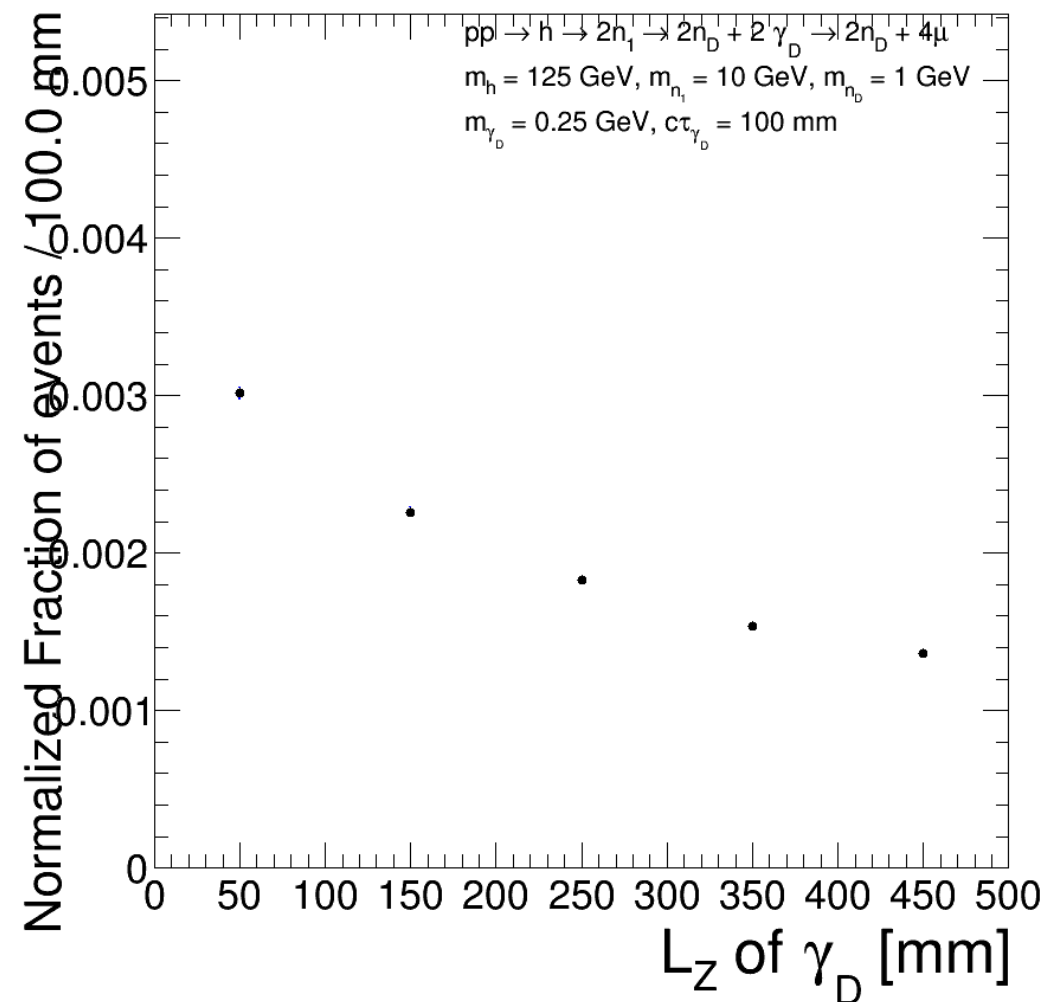
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CMS Simulation (LHE) 13 TeV

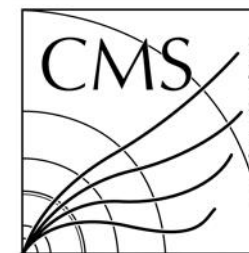


CMS Simulation (LHE) 13 TeV

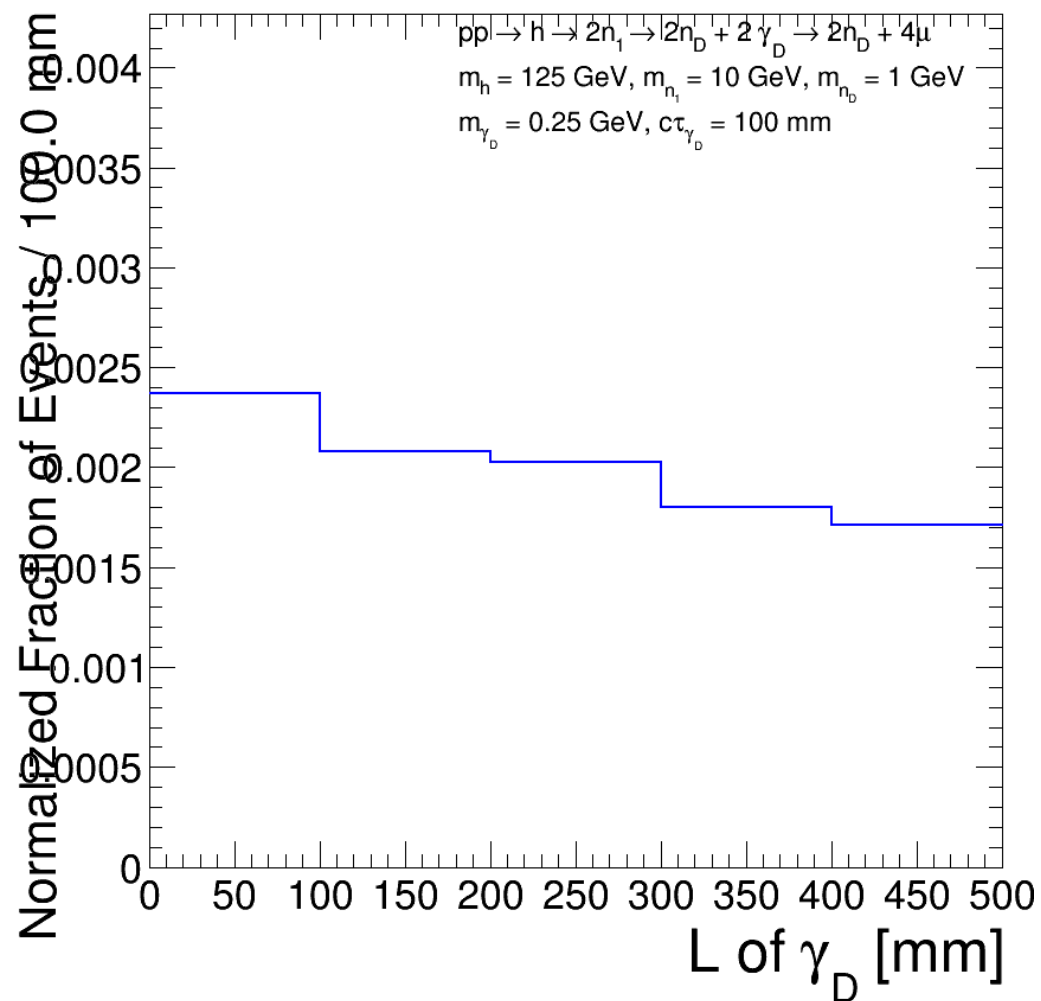


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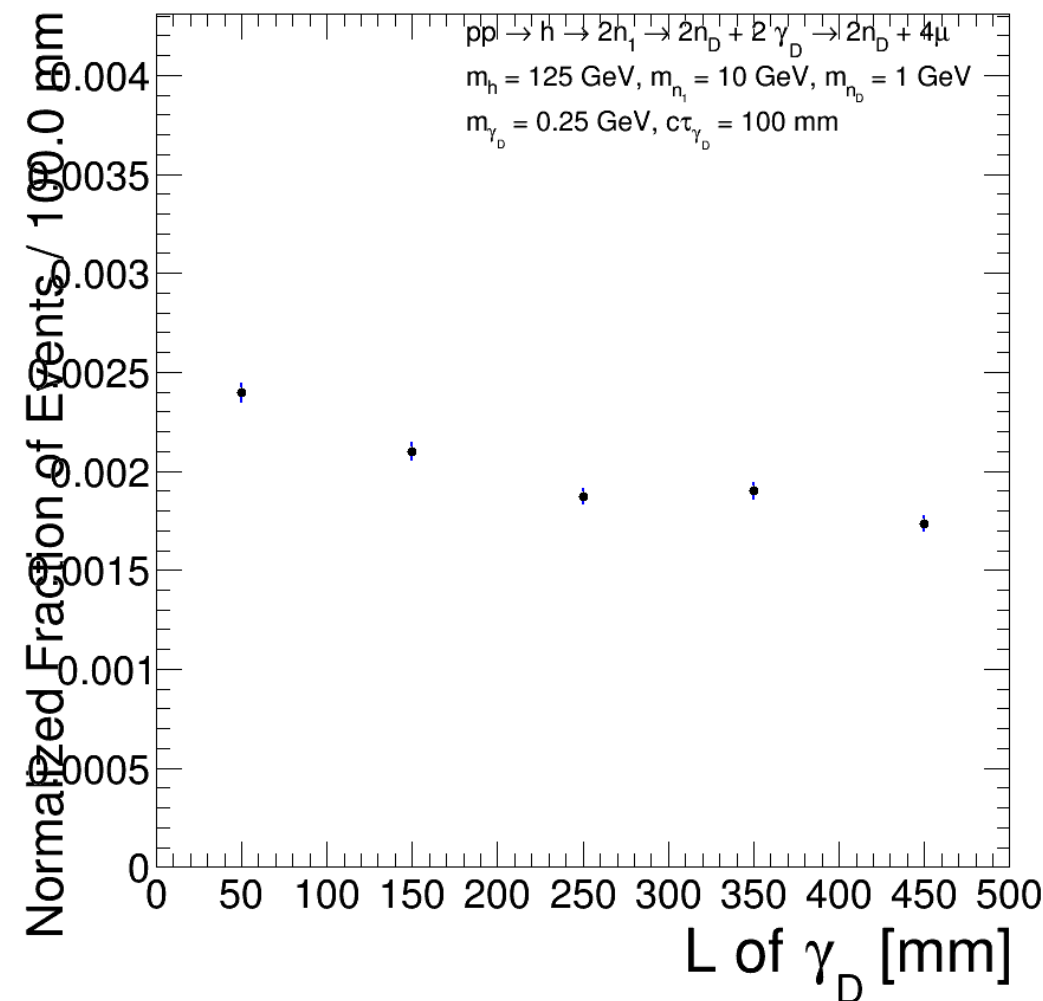
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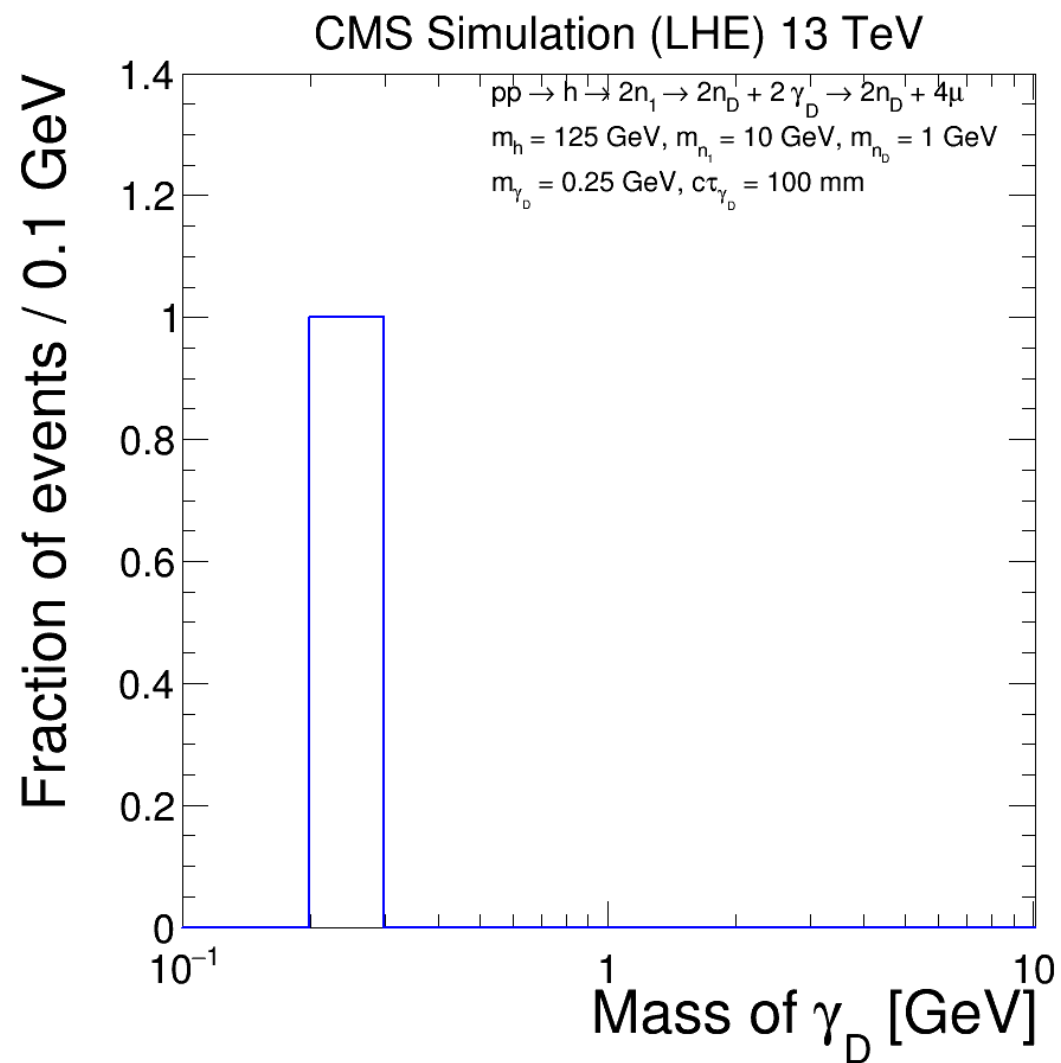
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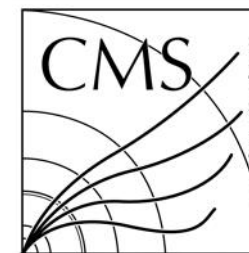
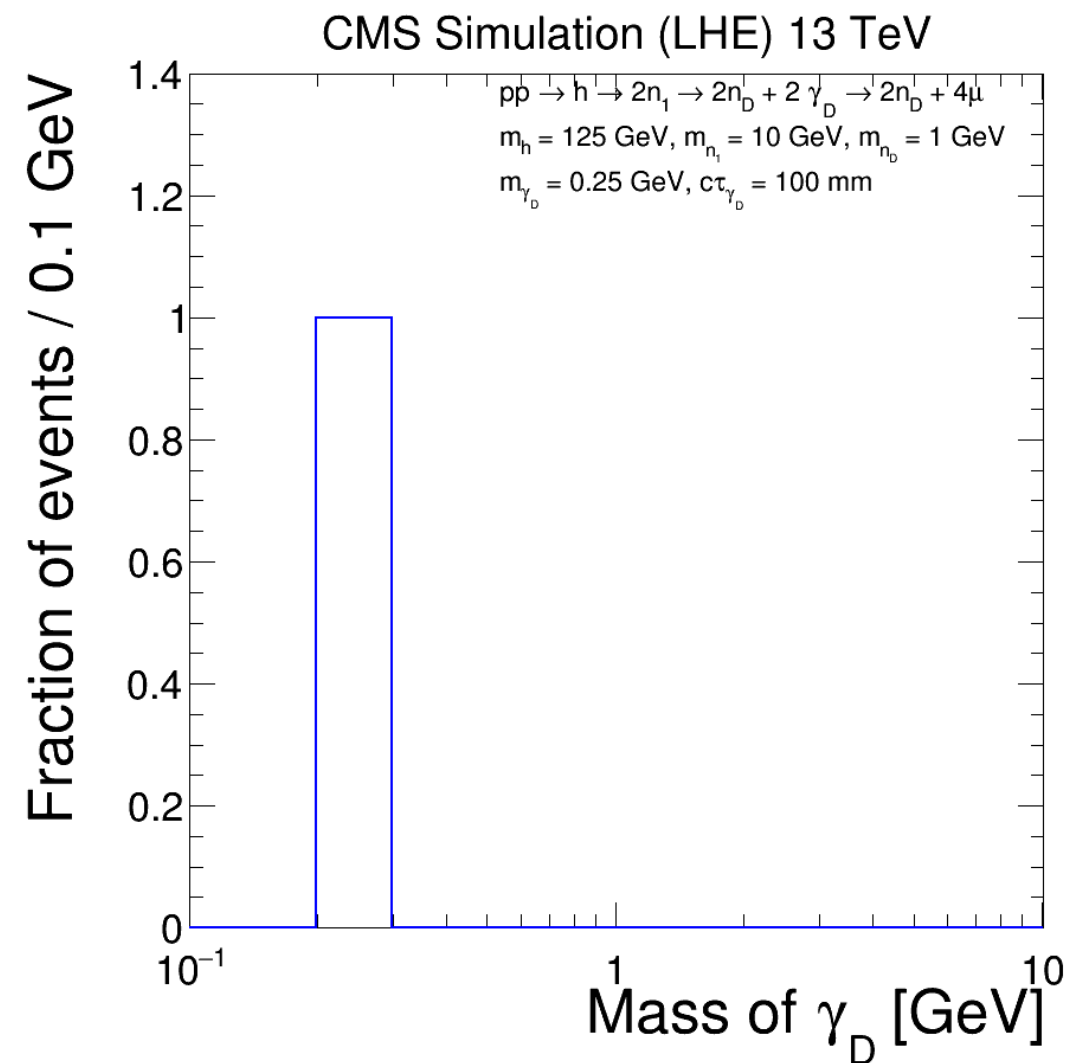
CMS Simulation (LHE) 13 TeV



MG4

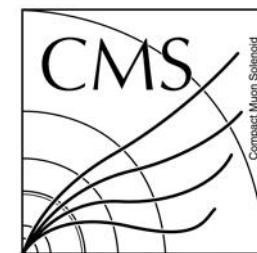


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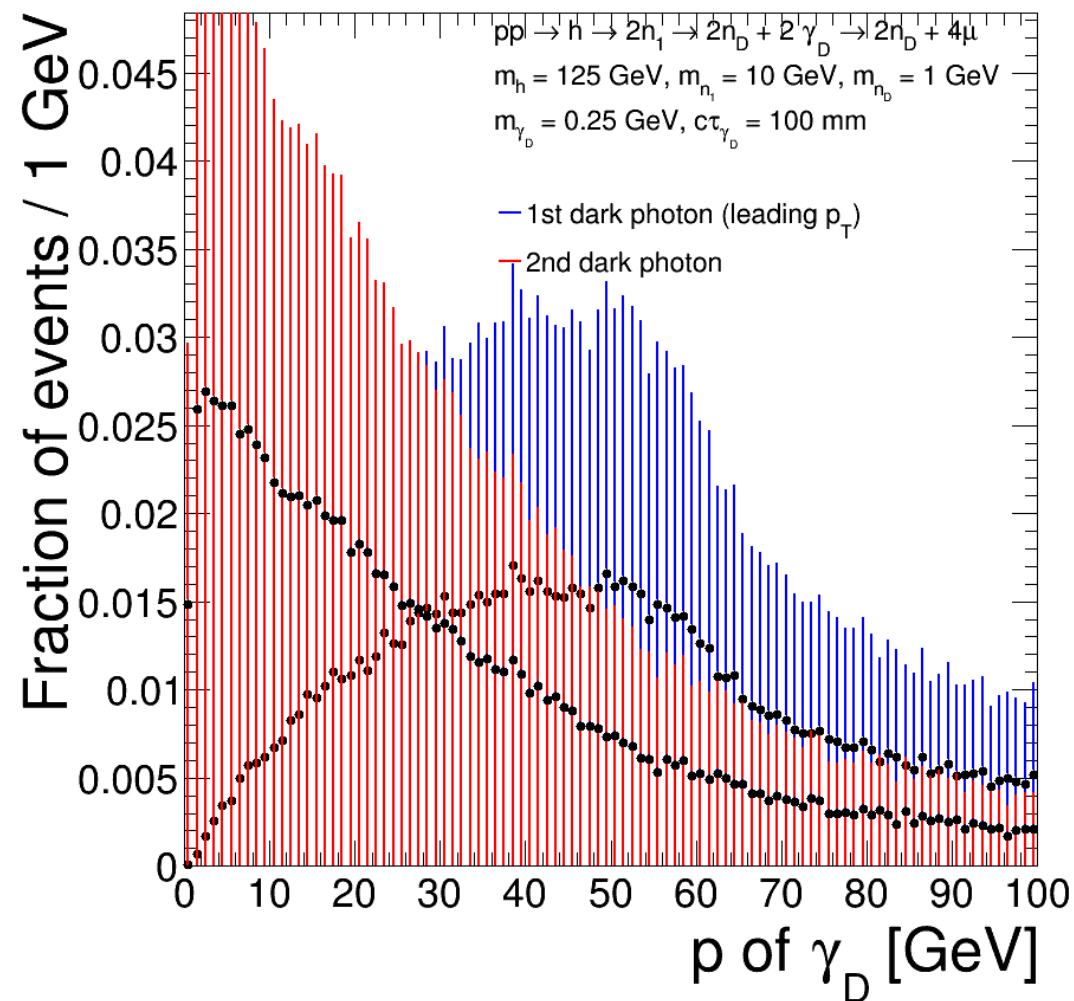
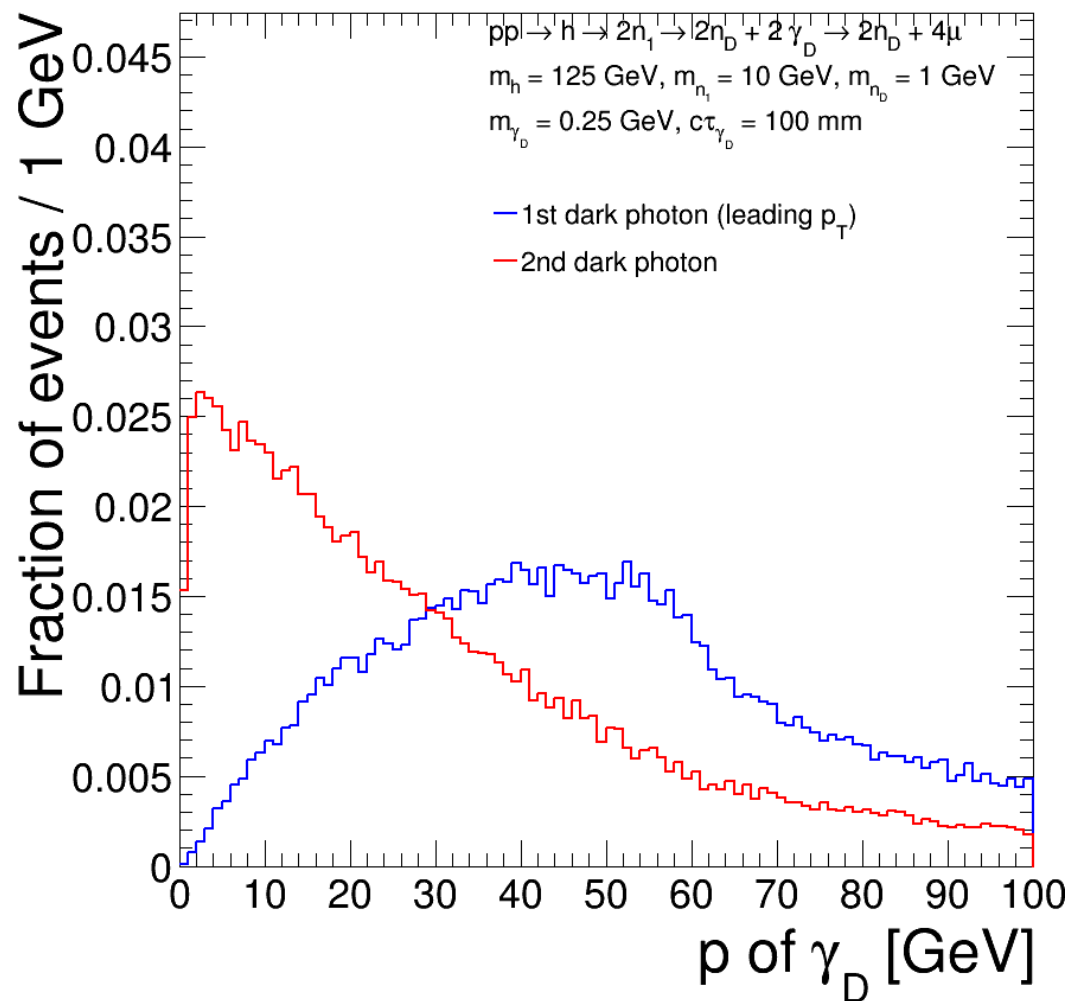
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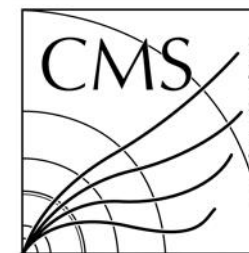
CMS Simulation (LHE) 13 TeV

CMS Simulation (LHE) 13 TeV



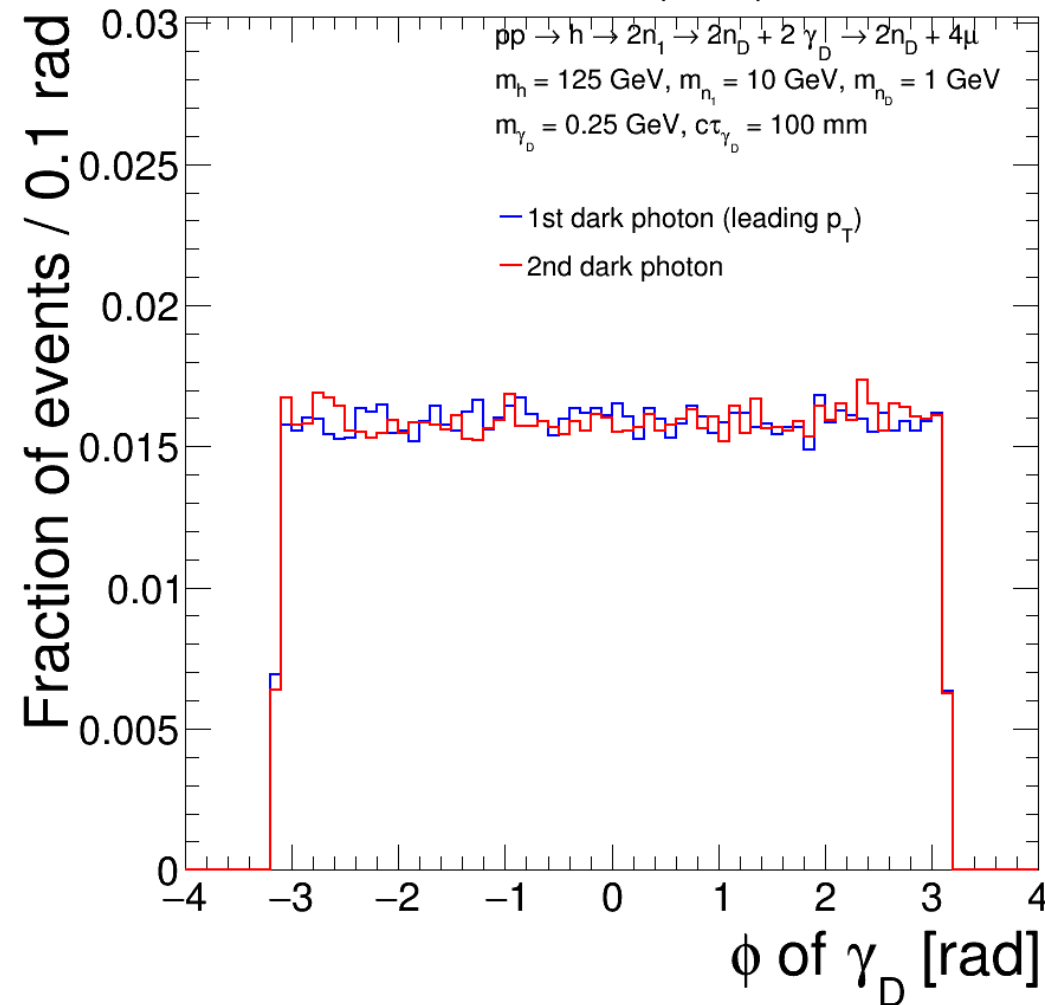
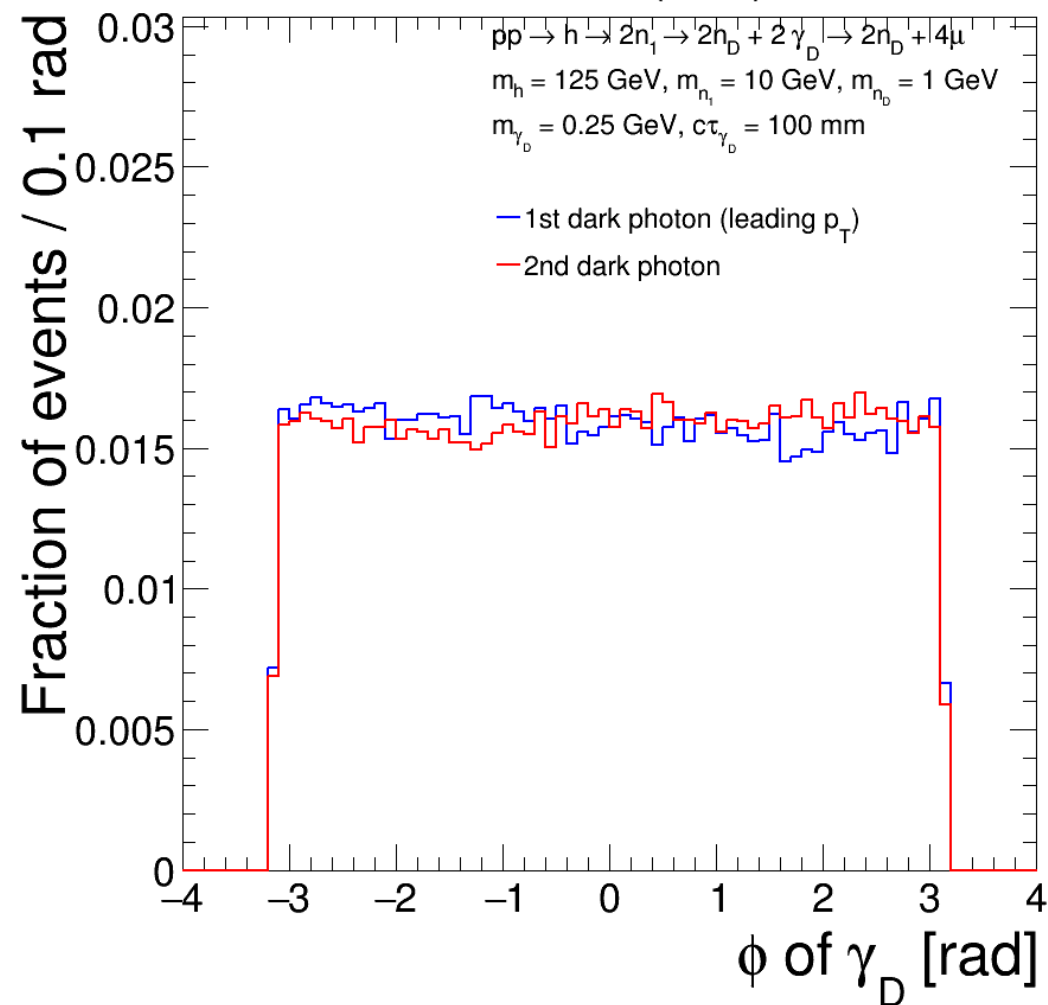
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CMS Simulation (LHE) 13 TeV

CMS Simulation (LHE) 13 TeV

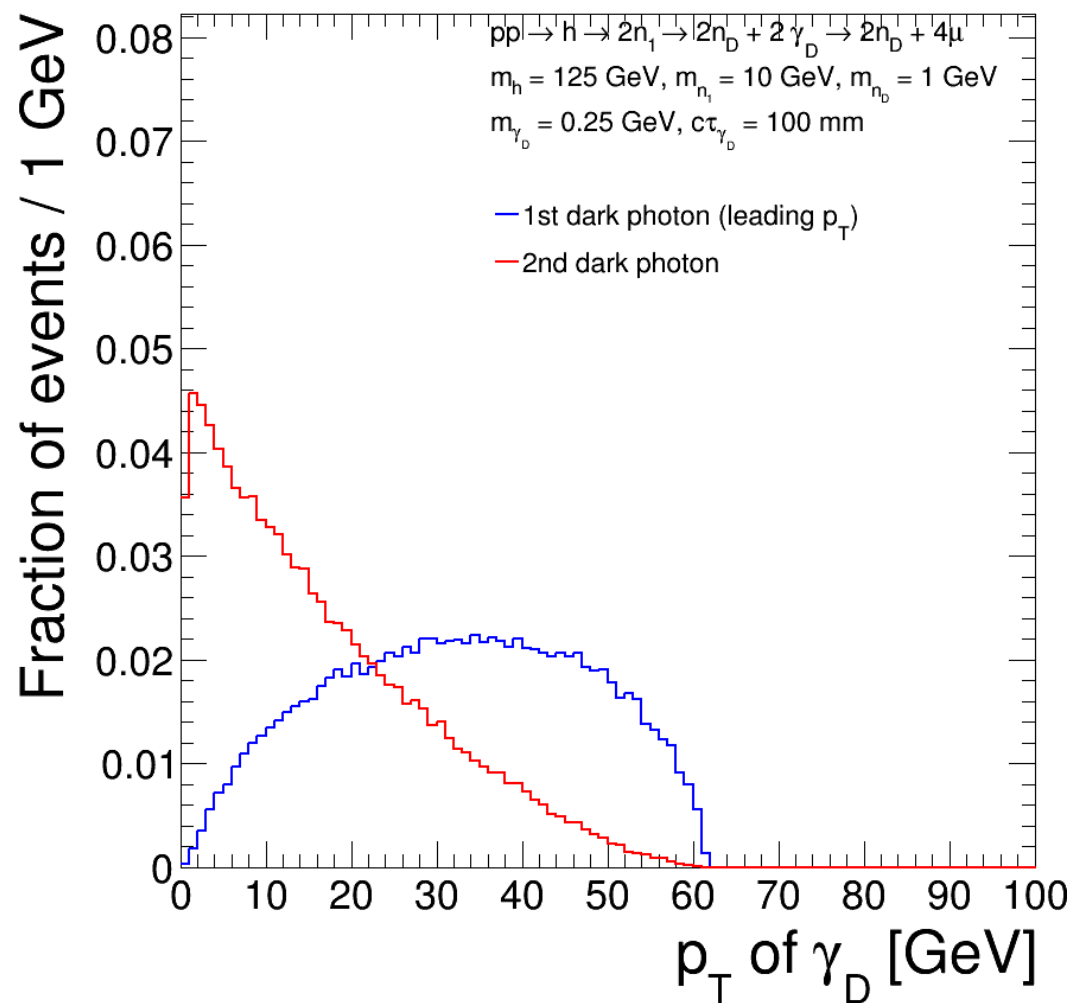


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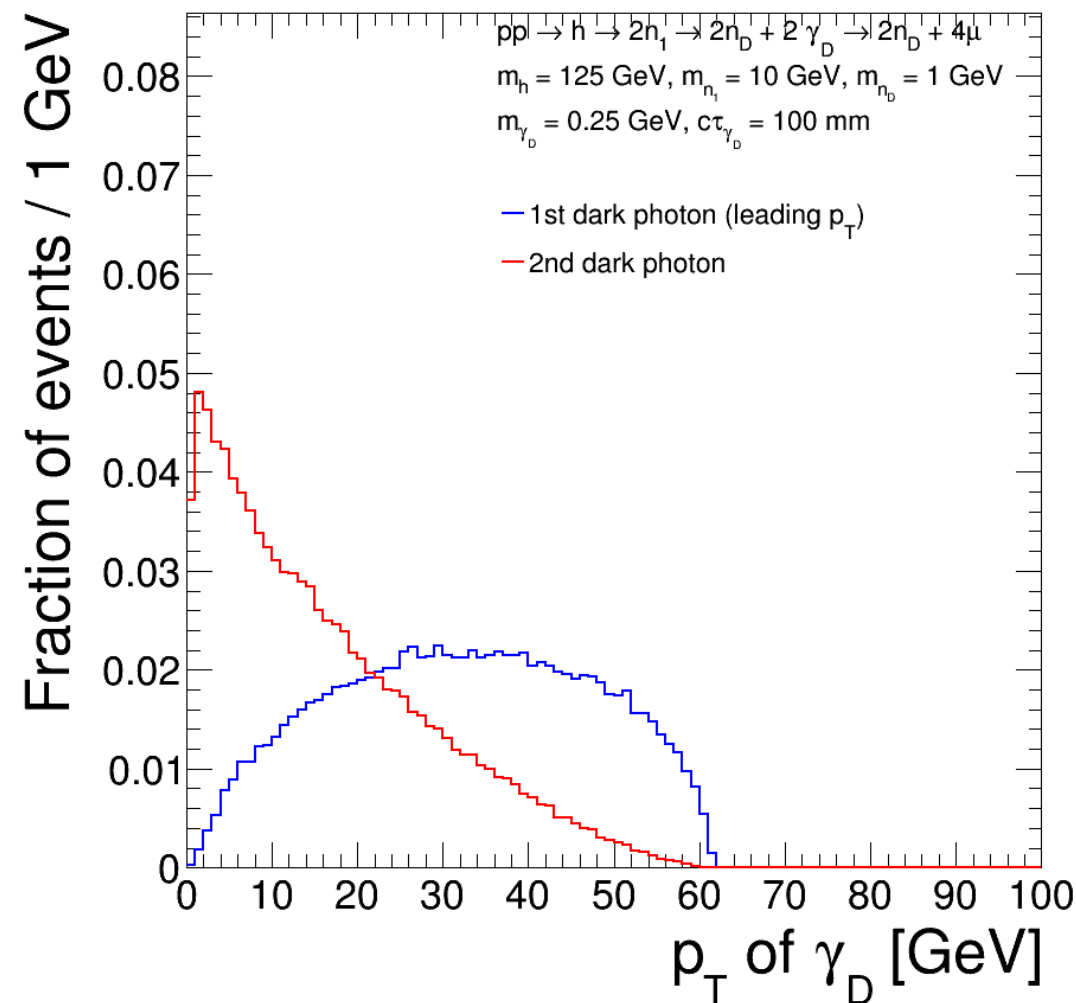
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CMS Simulation (LHE) 13 TeV



CMS Simulation (LHE) 13 TeV



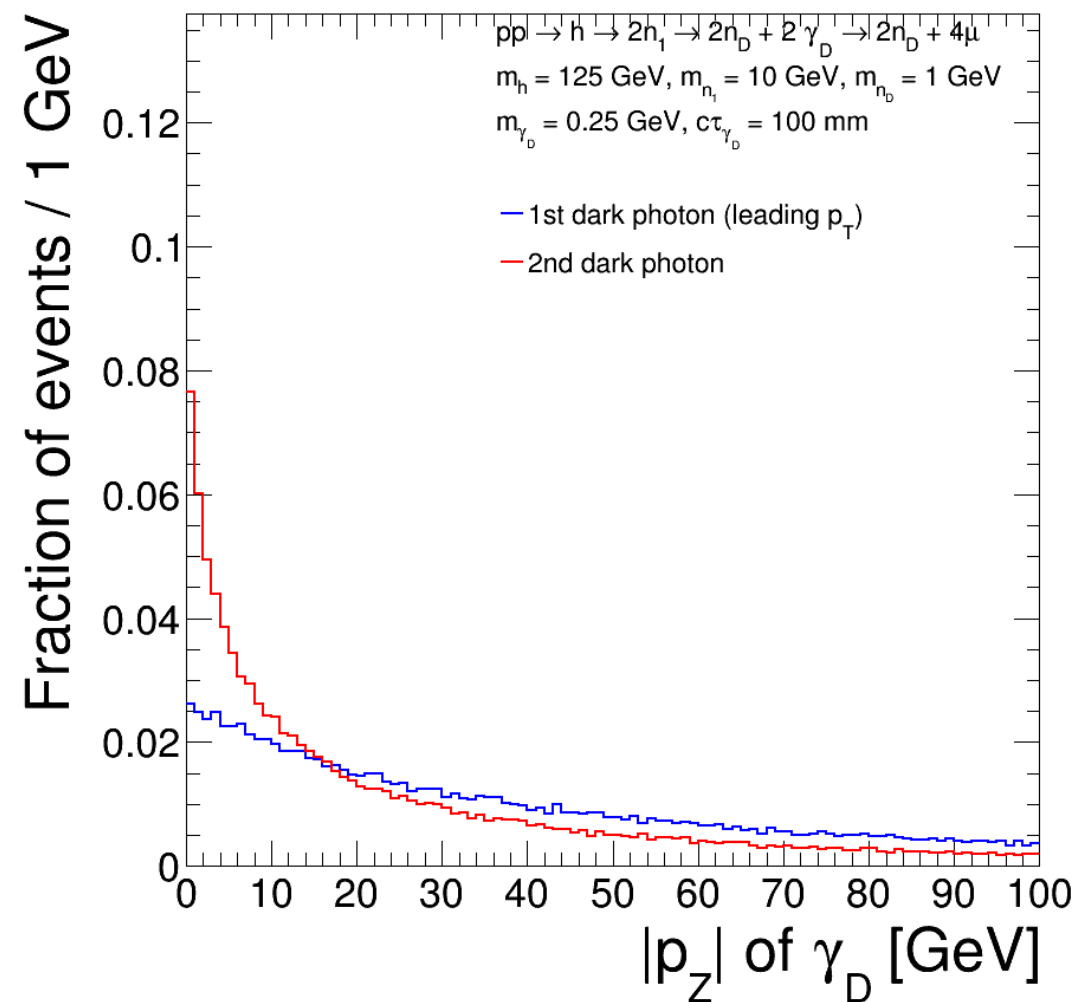
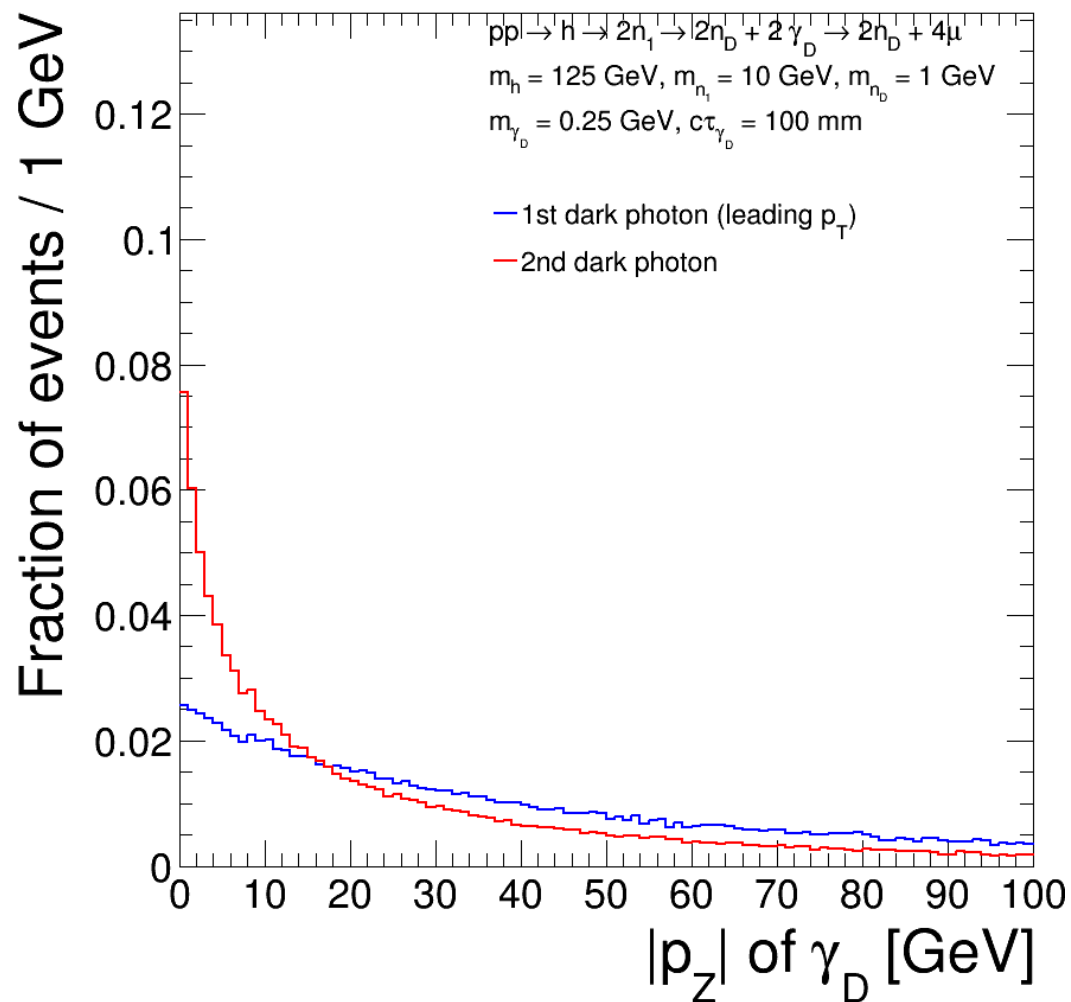
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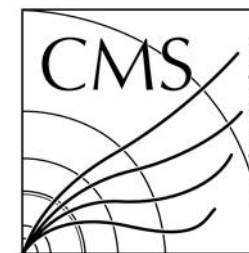
CMS Simulation (LHE) 13 TeV

CMS Simulation (LHE) 13 TeV

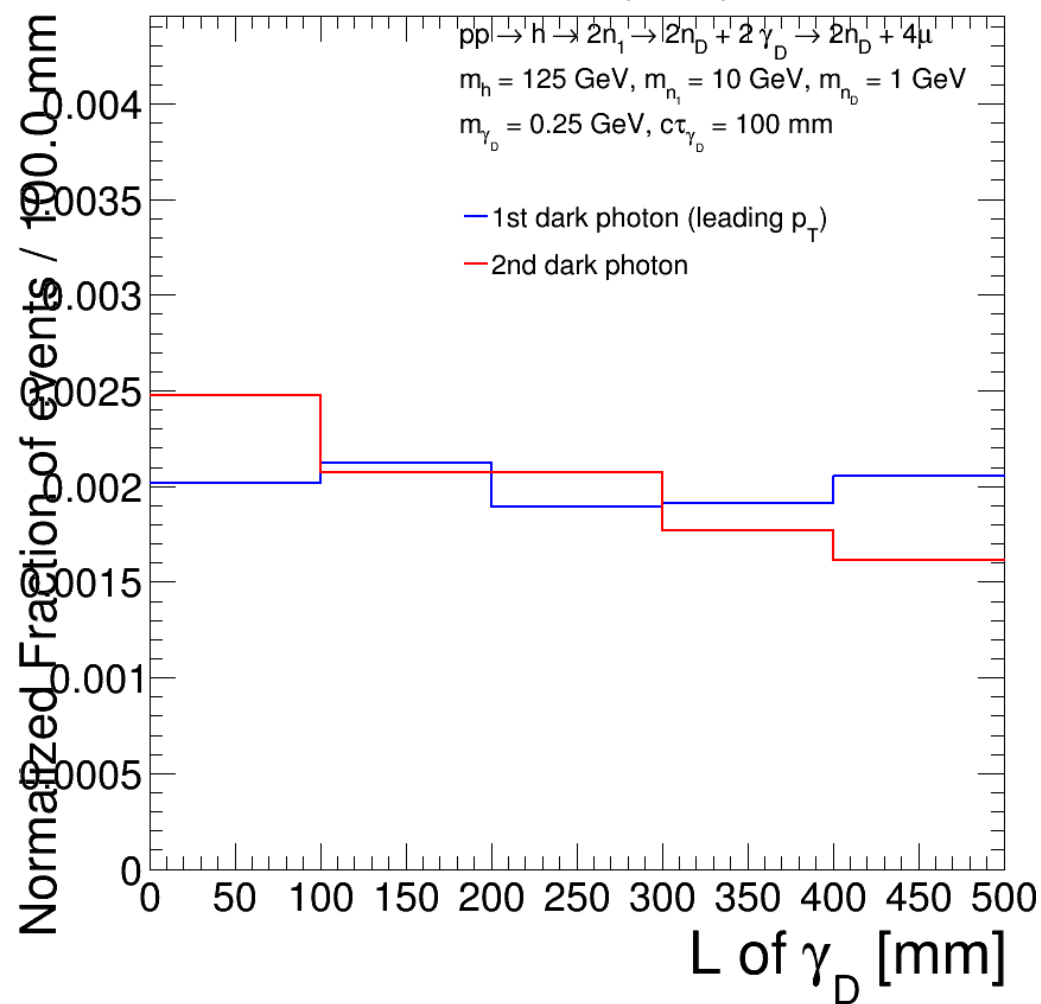


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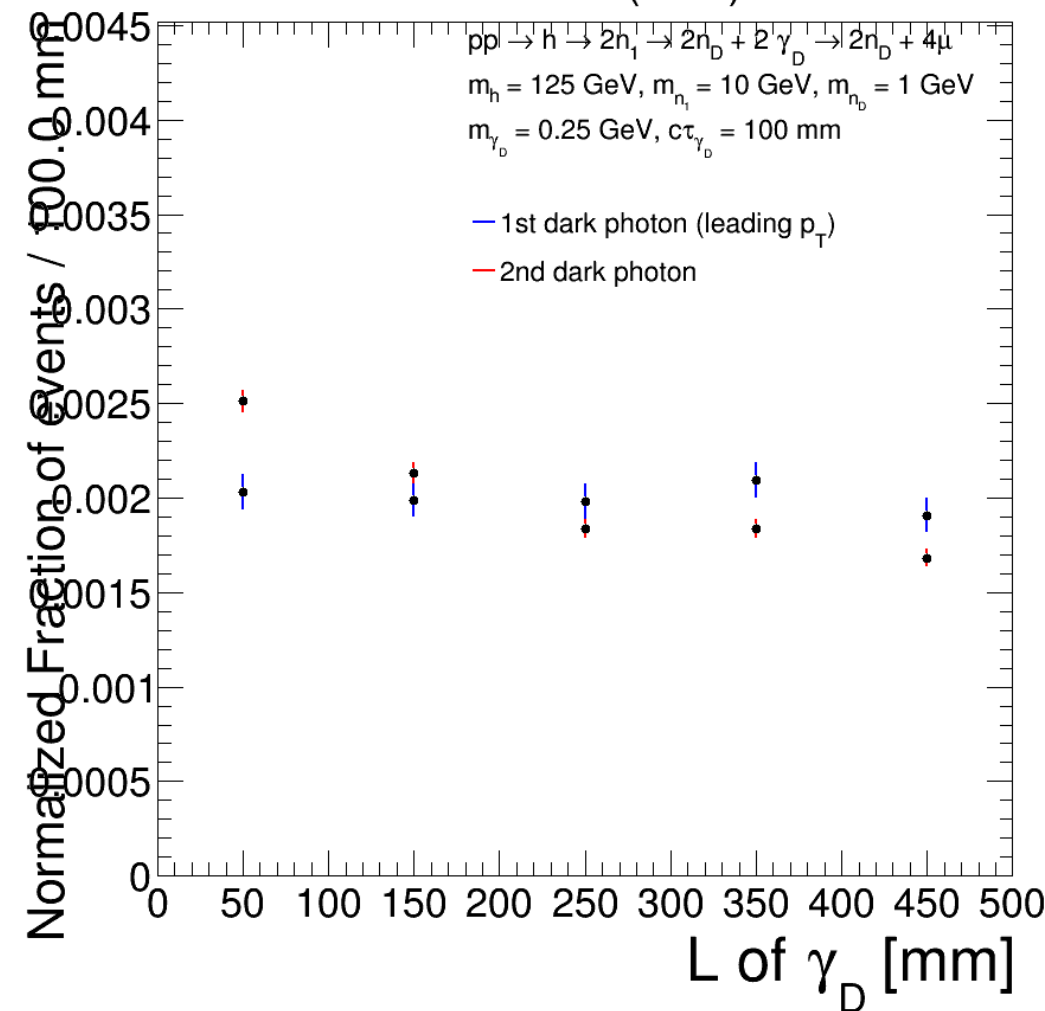
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CMS Simulation (LHE) 13 TeV

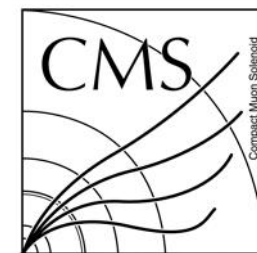


CMS Simulation (LHE) 13 TeV



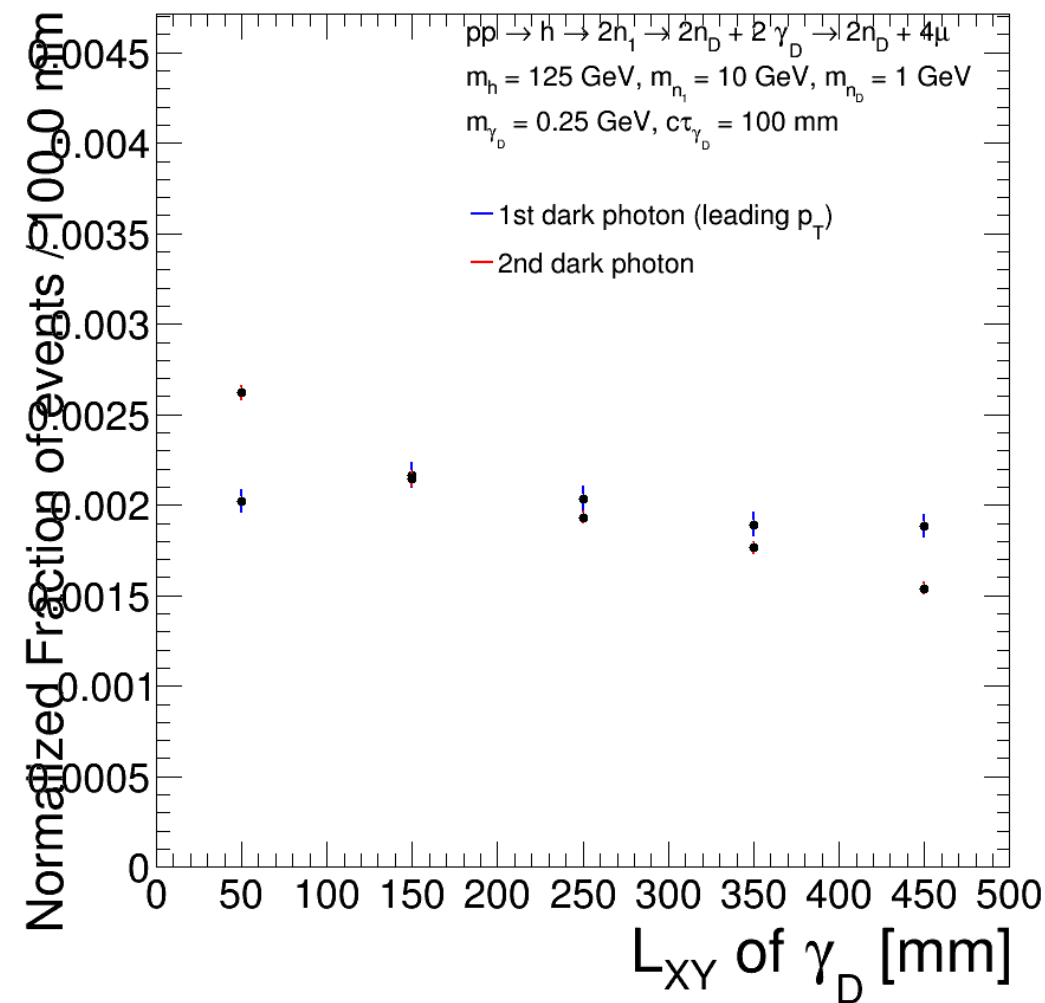
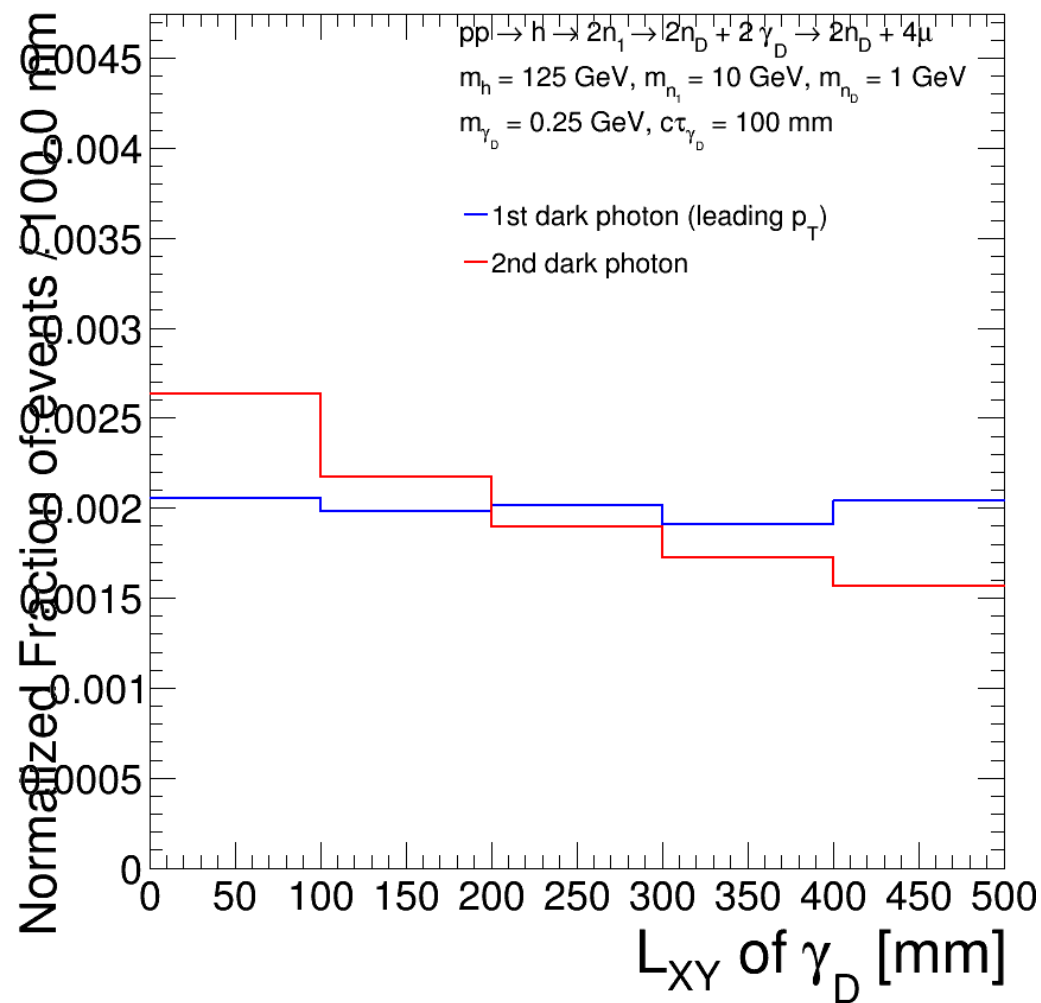
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CMS Simulation (LHE) 13 TeV

CMS Simulation (LHE) 13 TeV

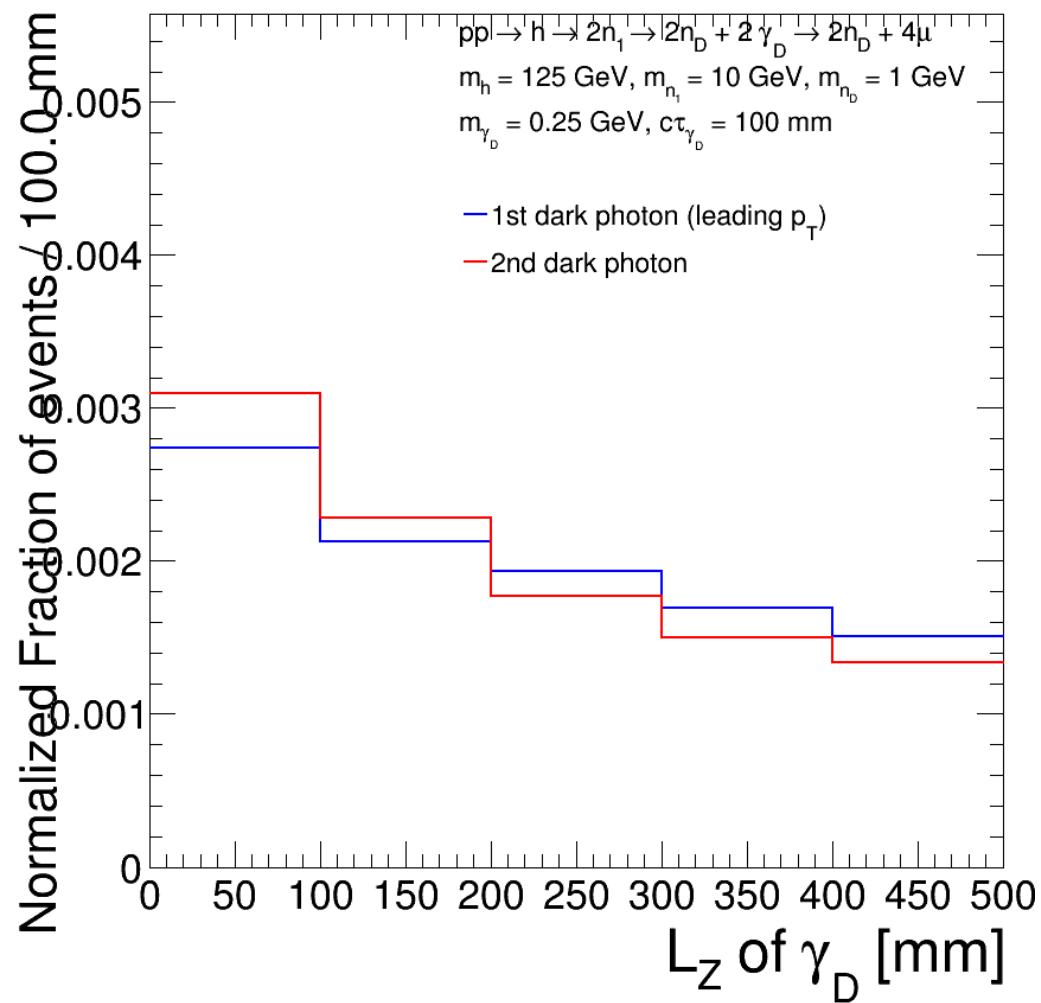


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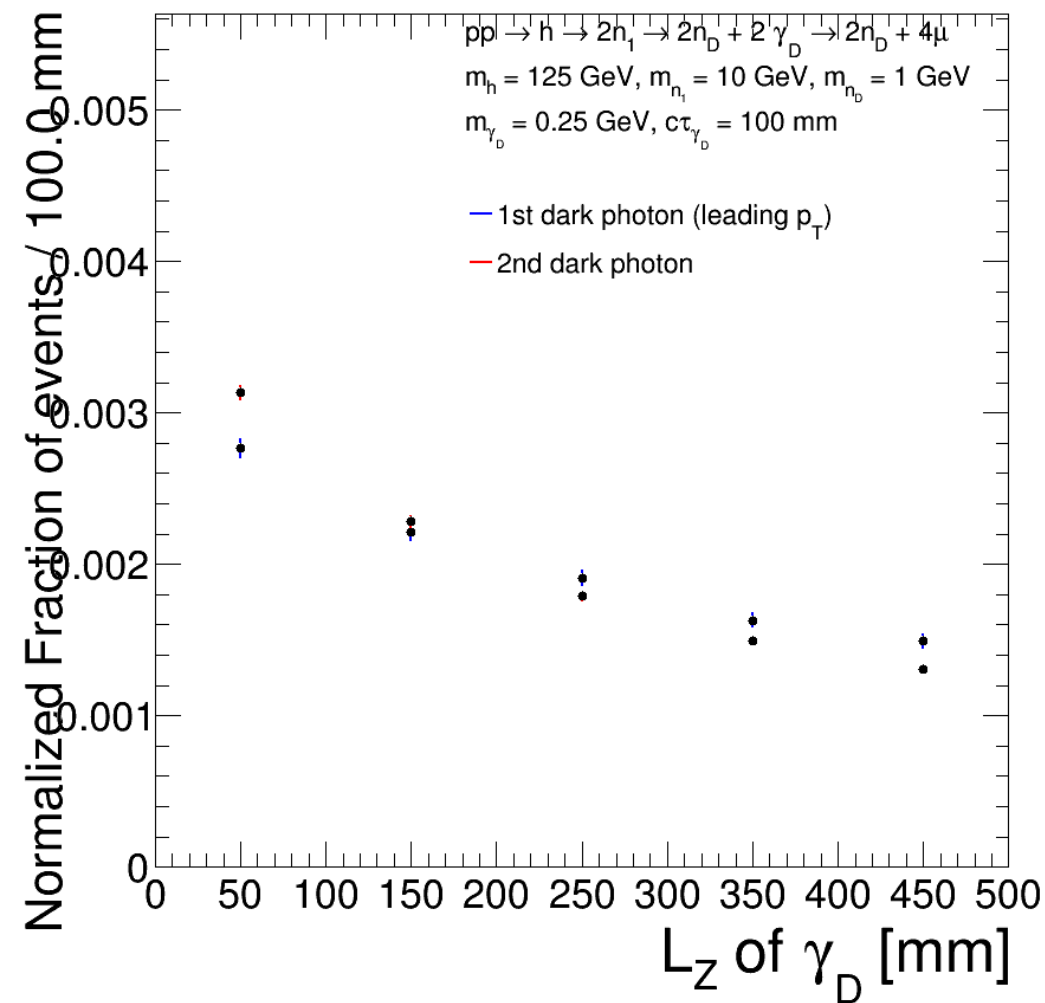
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CMS Simulation (LHE) 13 TeV



CMS Simulation (LHE) 13 TeV

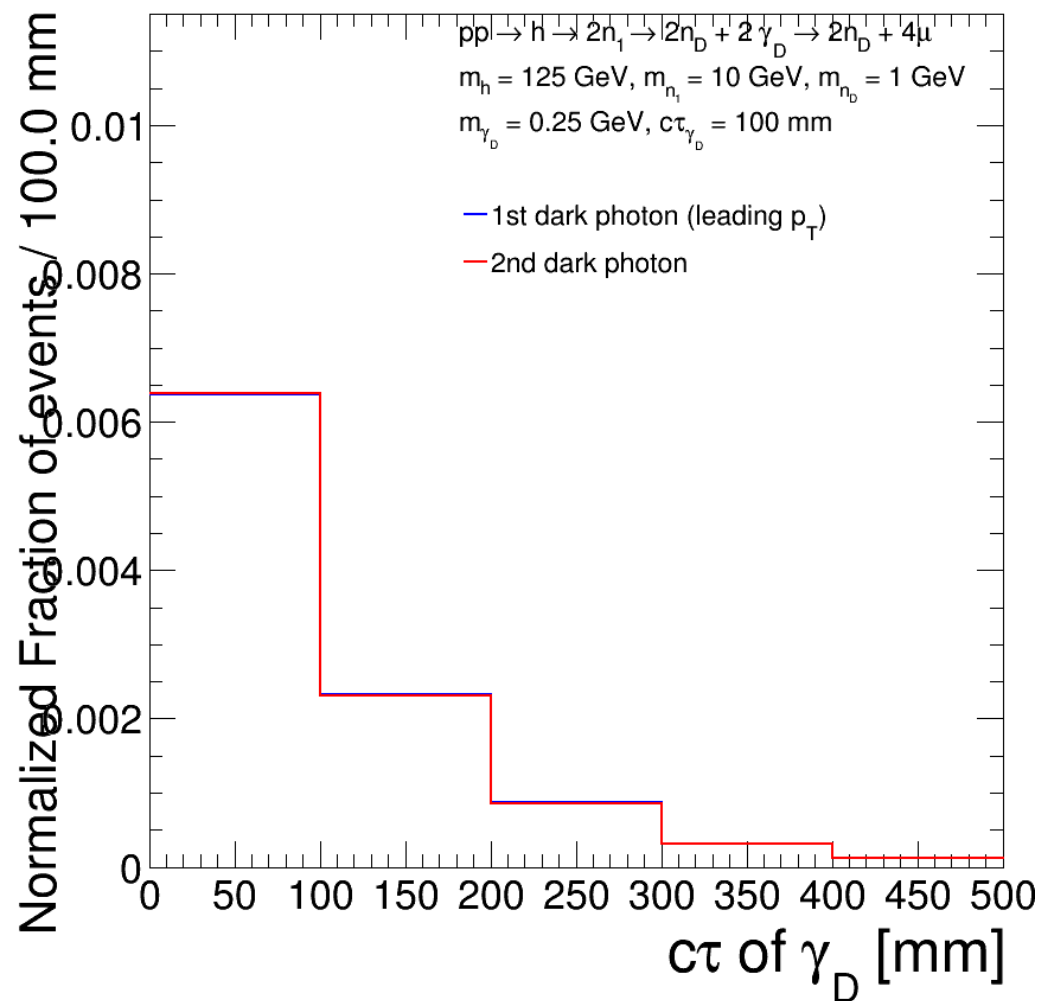


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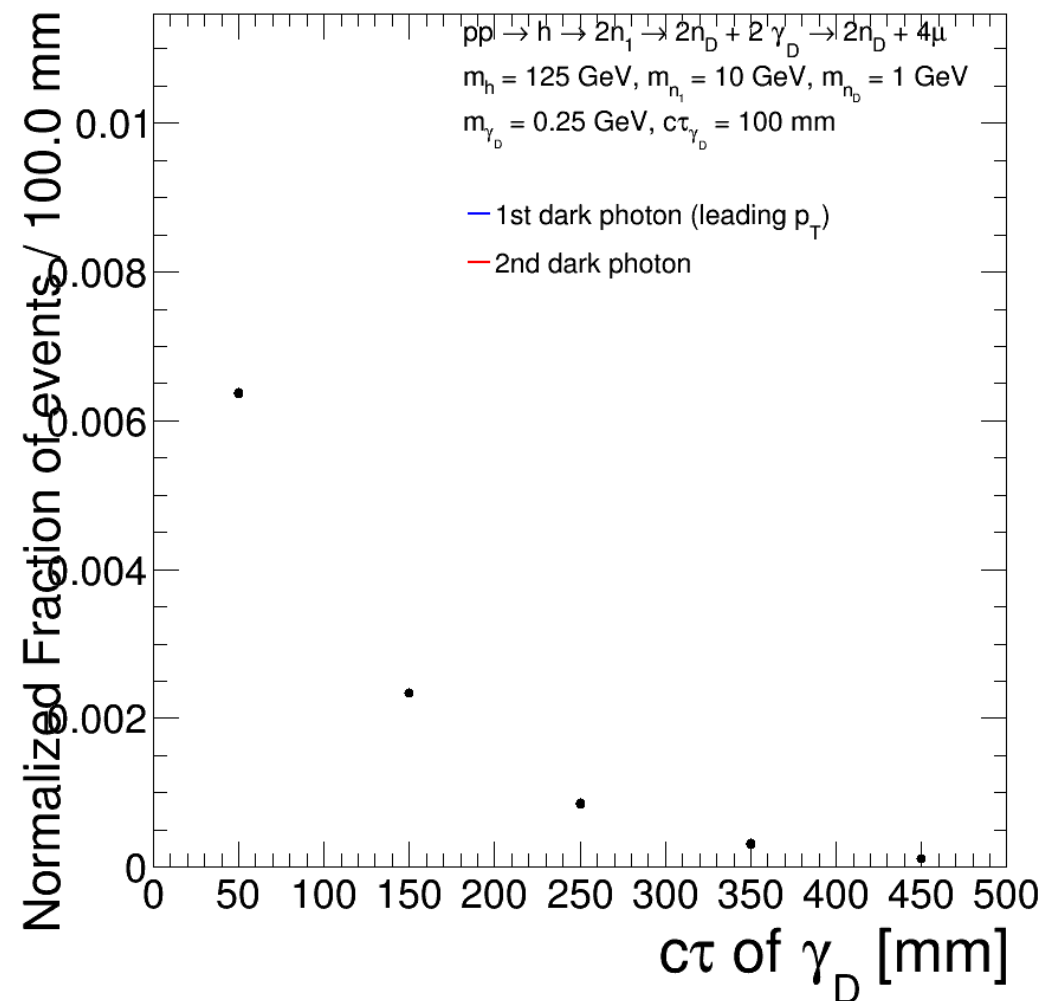
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CMS Simulation (LHE) 13 TeV

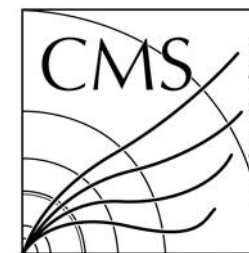


CMS Simulation (LHE) 13 TeV

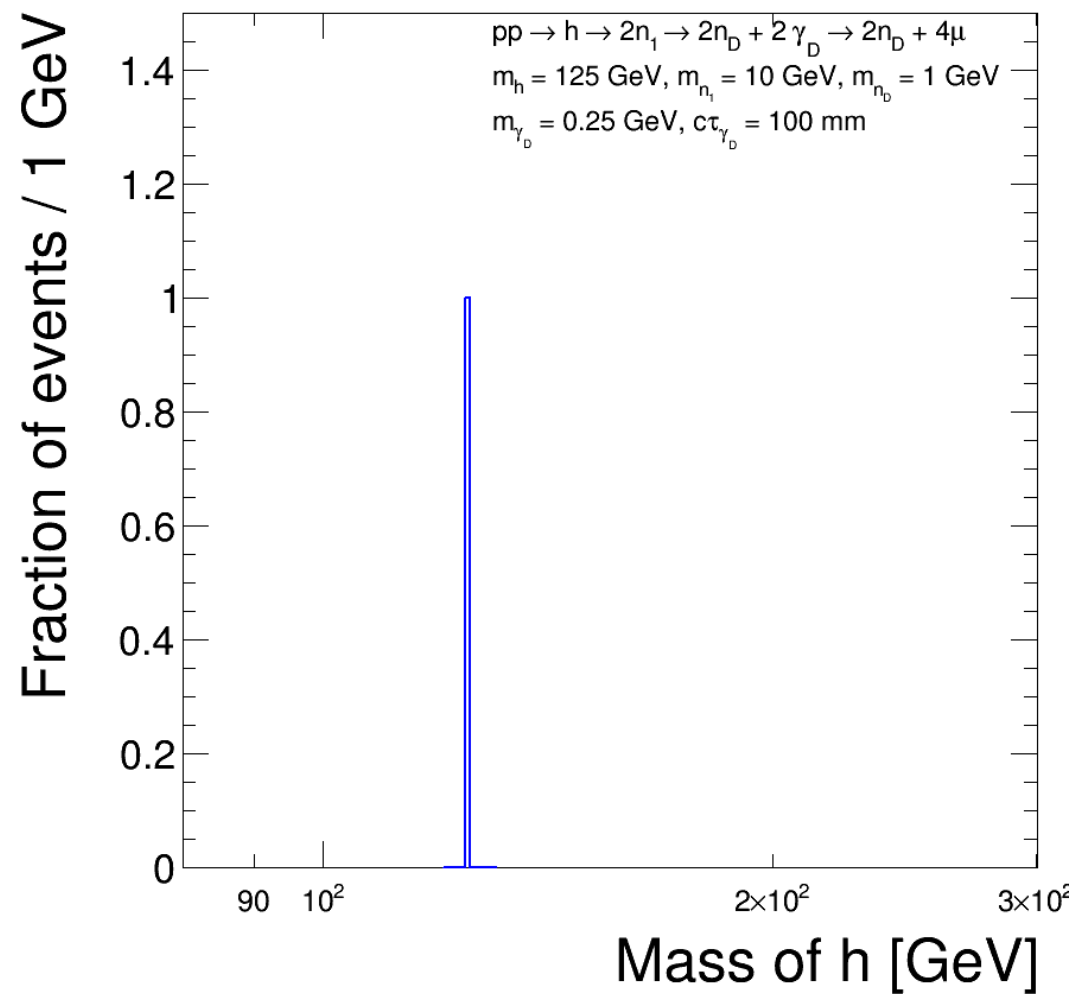


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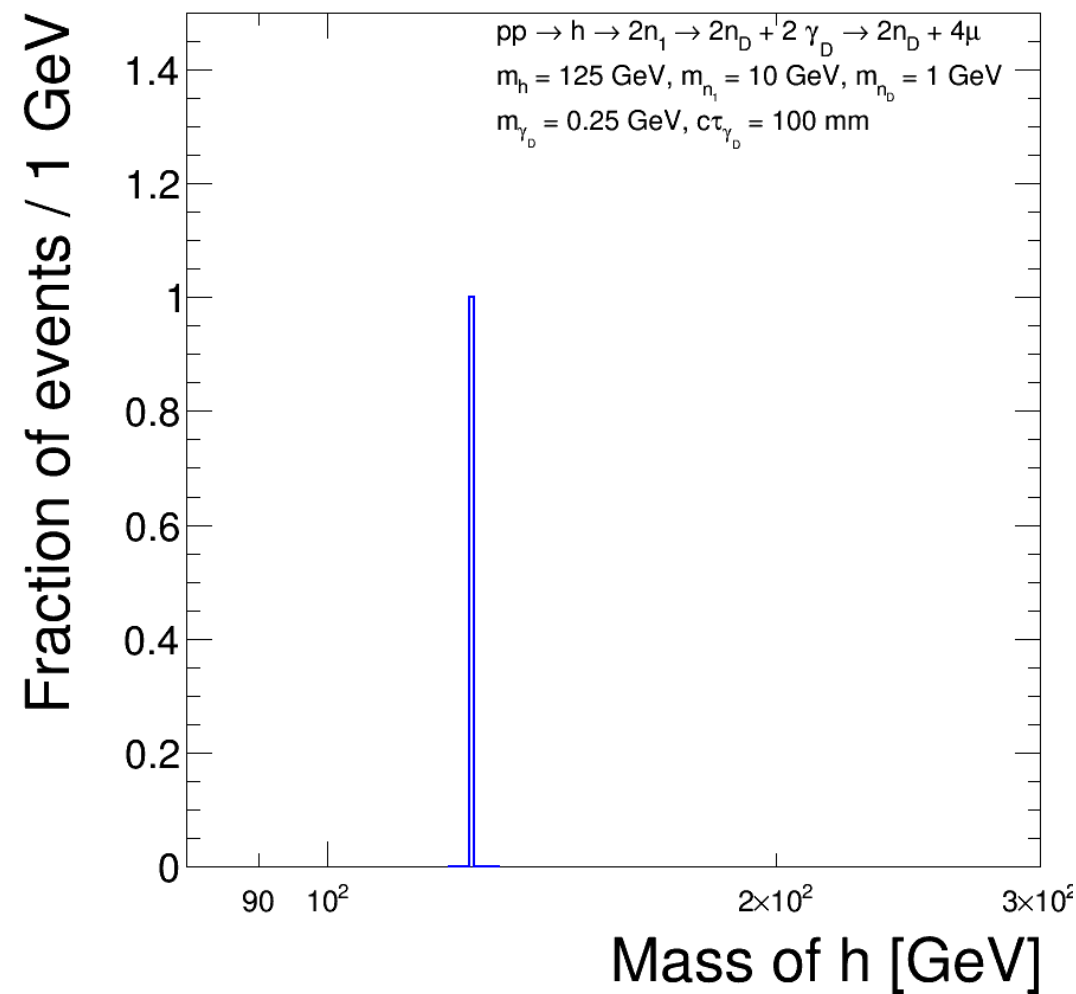
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CMS Simulation (LHE) 13 TeV



CMS Simulation (LHE) 13 TeV



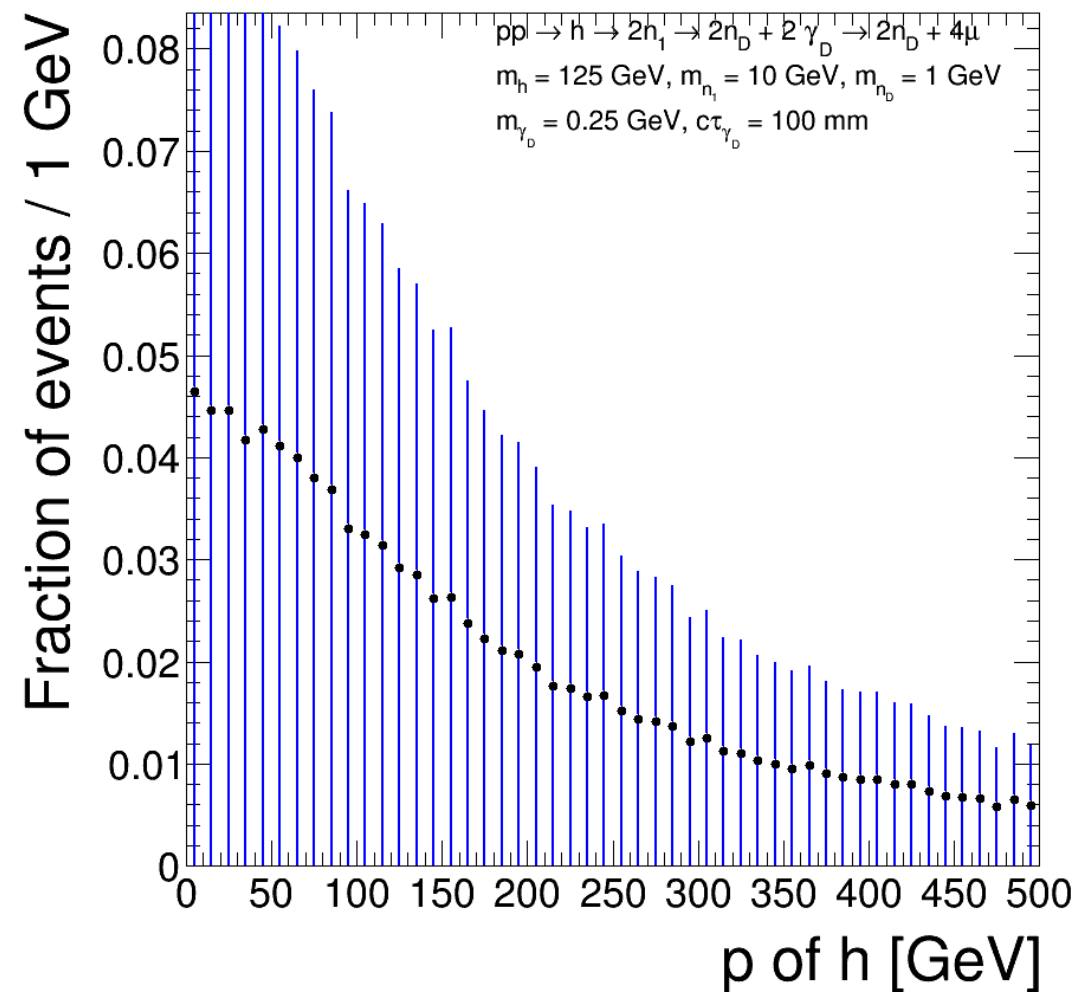
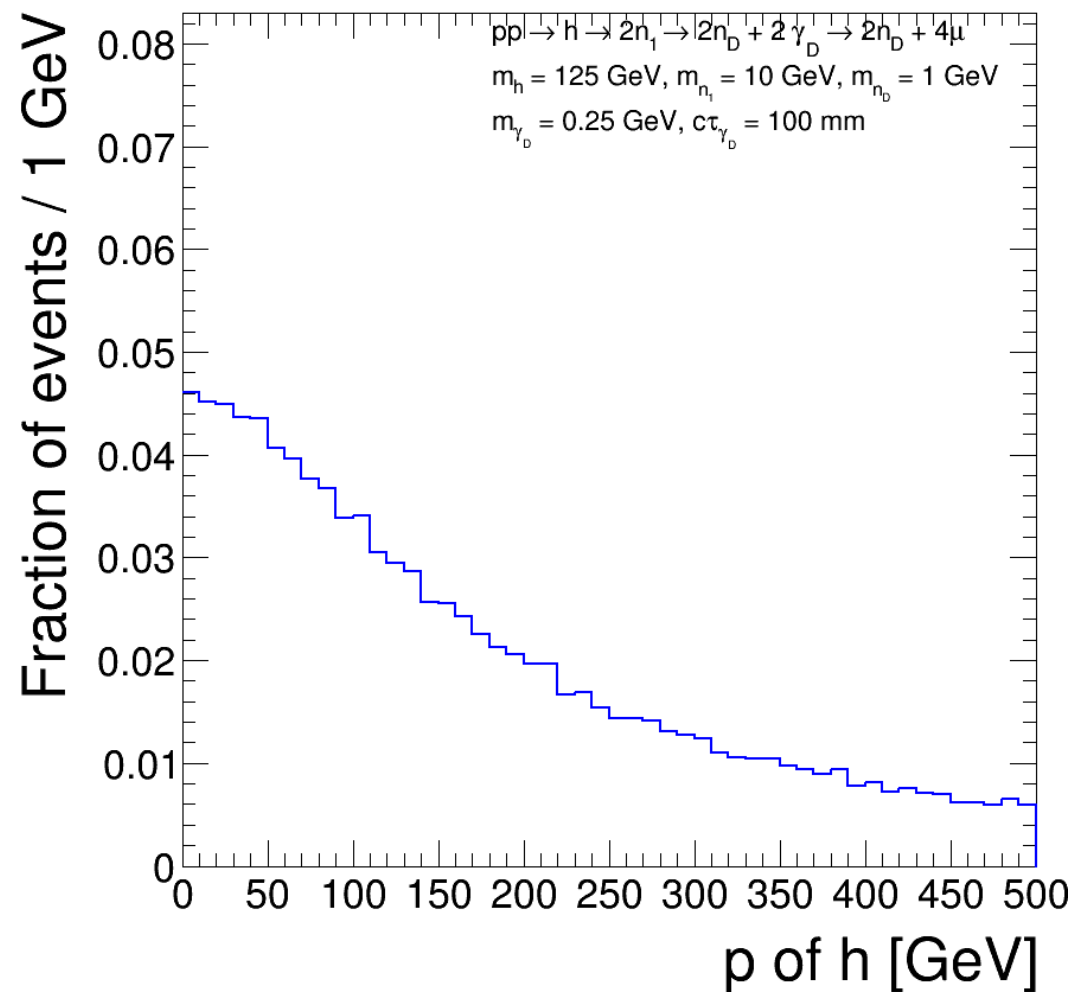
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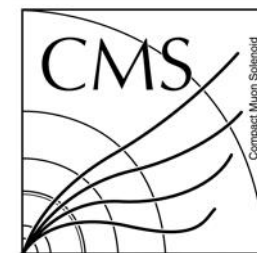
CMS Simulation (LHE) 13 TeV

CMS Simulation (LHE) 13 TeV



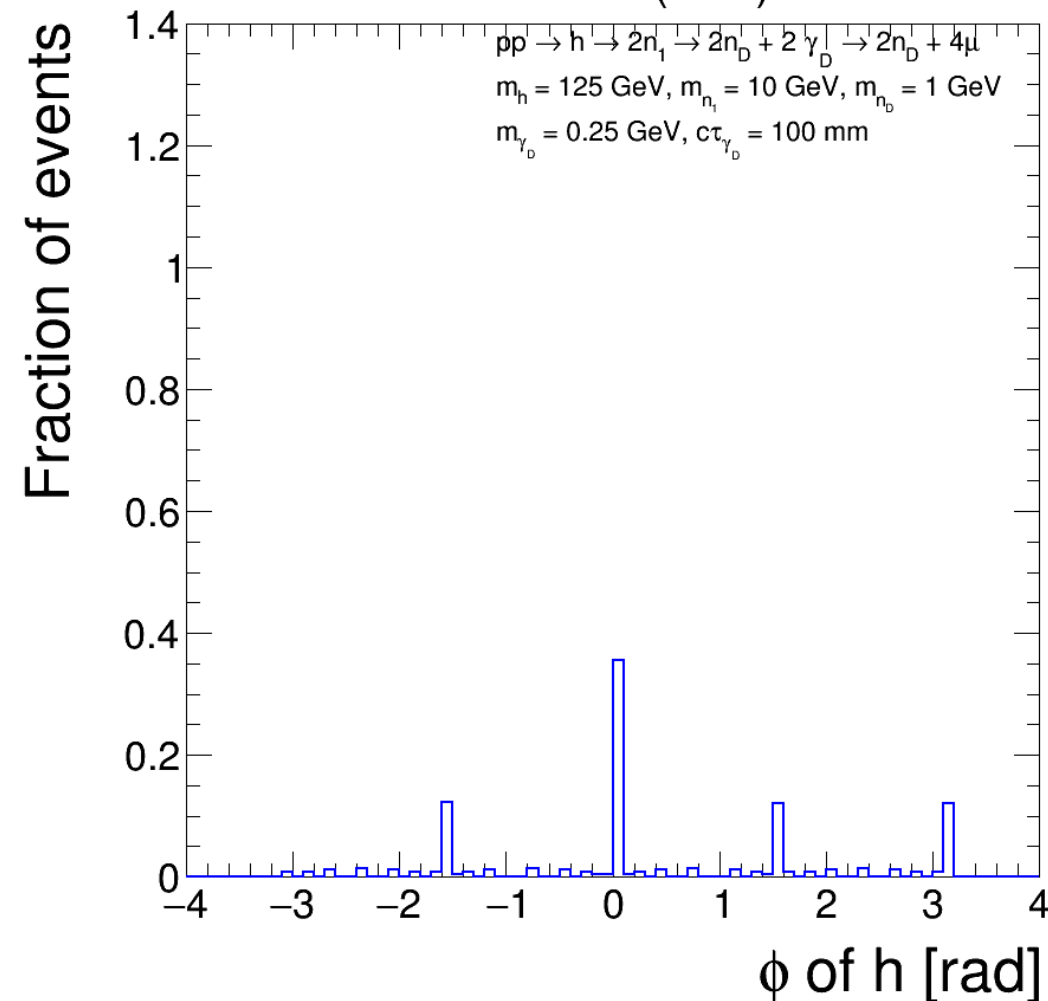
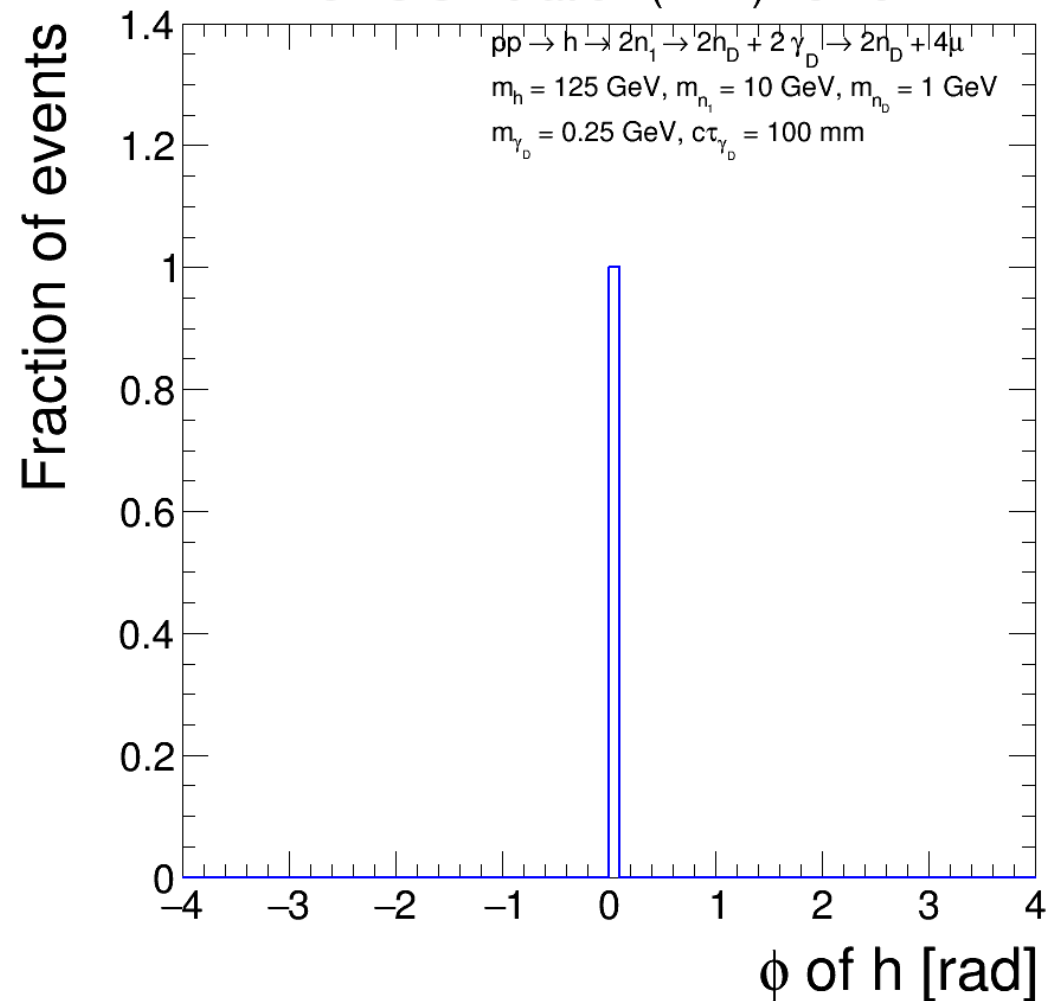
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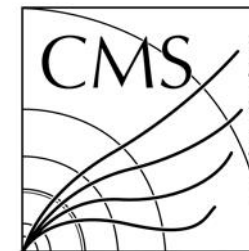
CMS Simulation (LHE) 13 TeV

CMS Simulation (LHE) 13 TeV

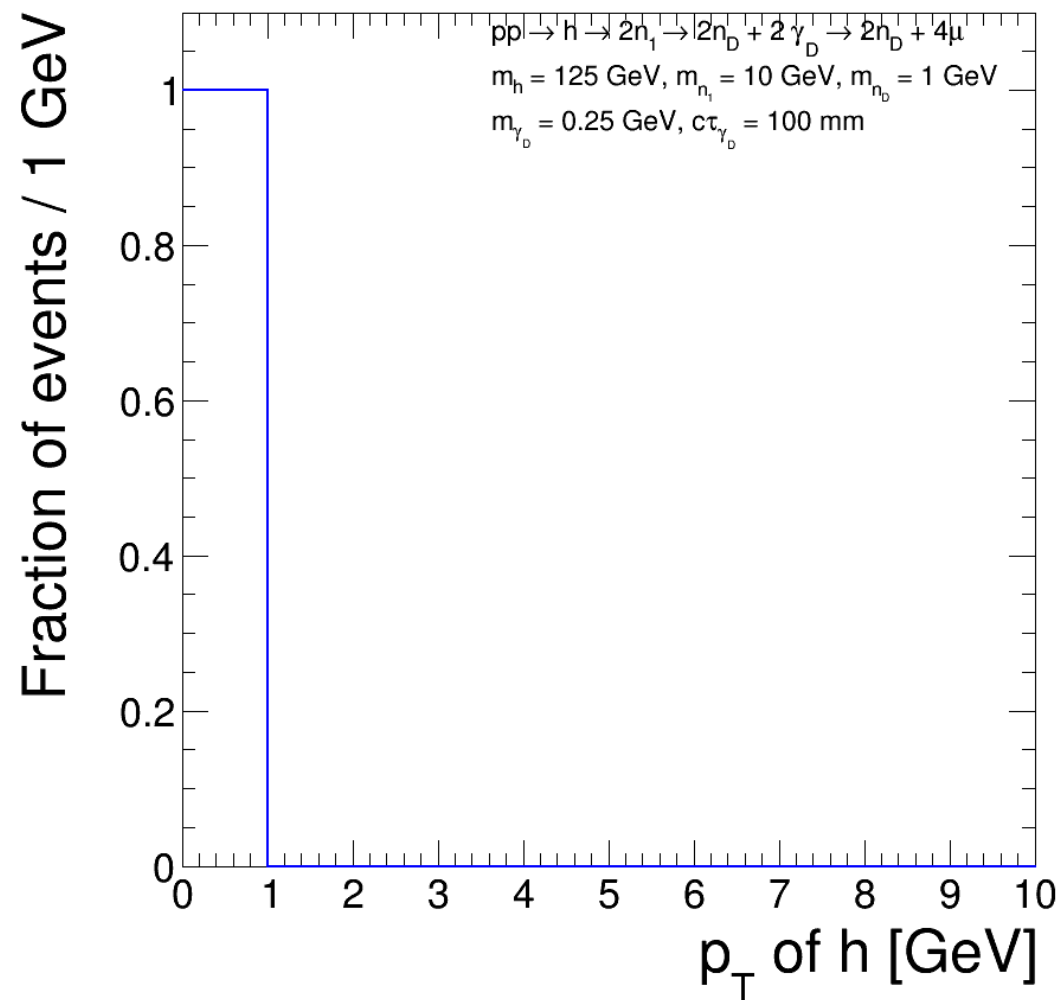


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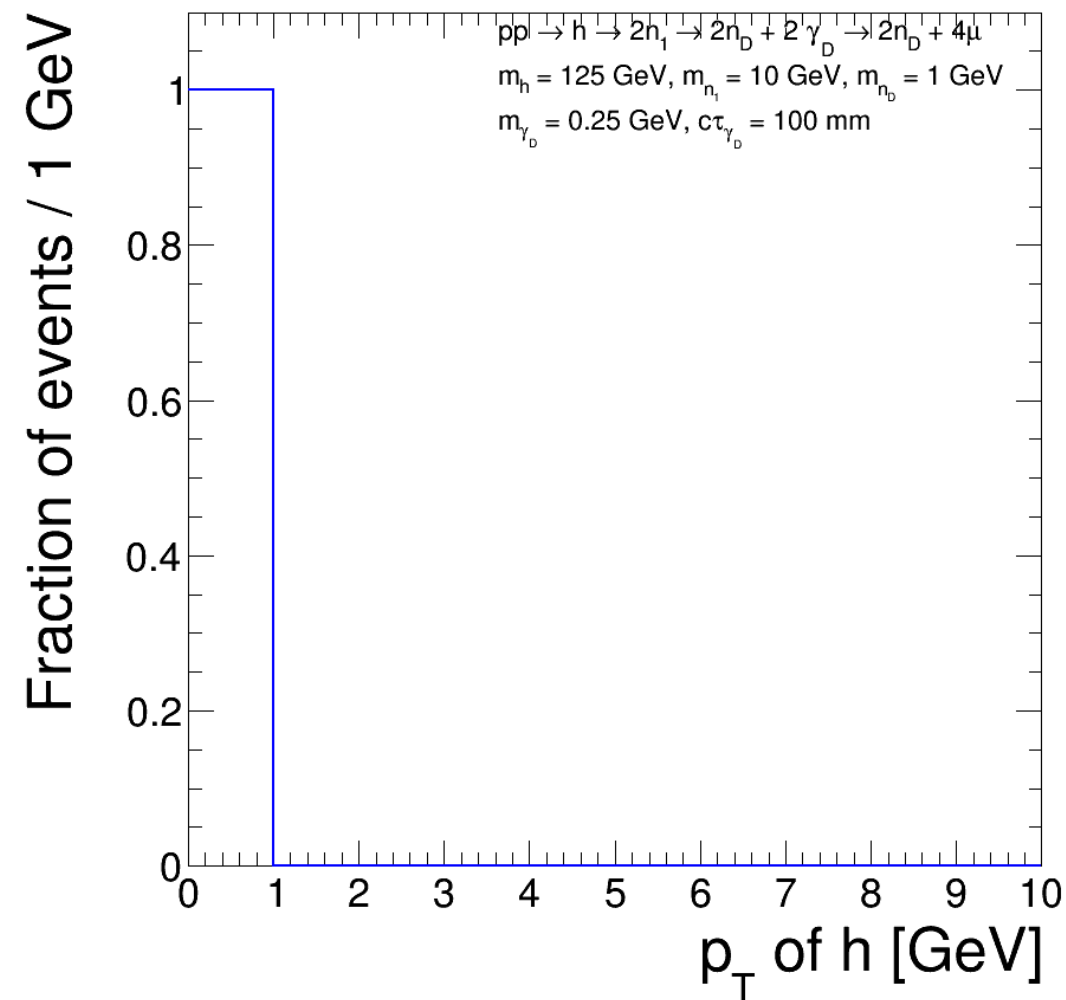
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CMS Simulation (LHE) 13 TeV

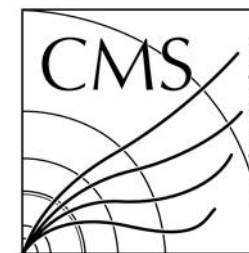


CMS Simulation (LHE) 13 TeV



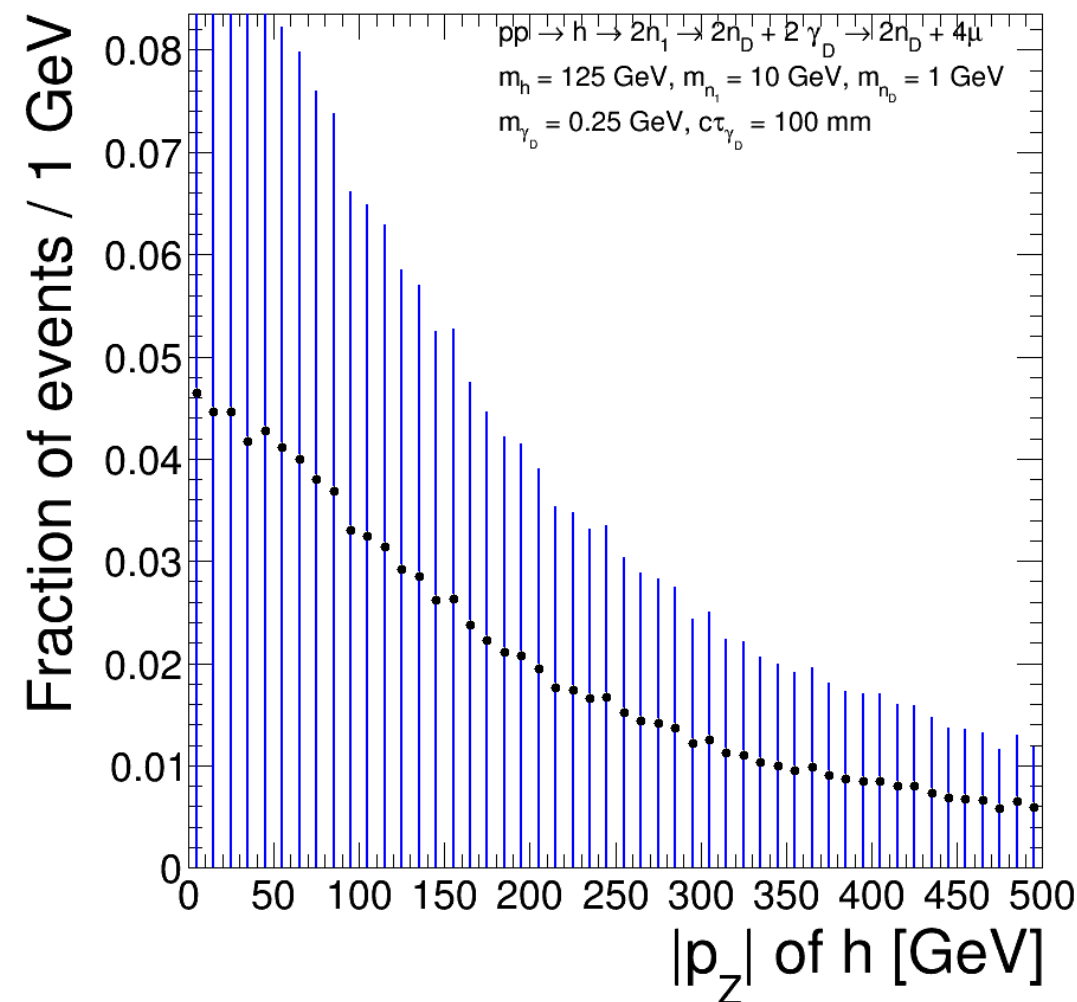
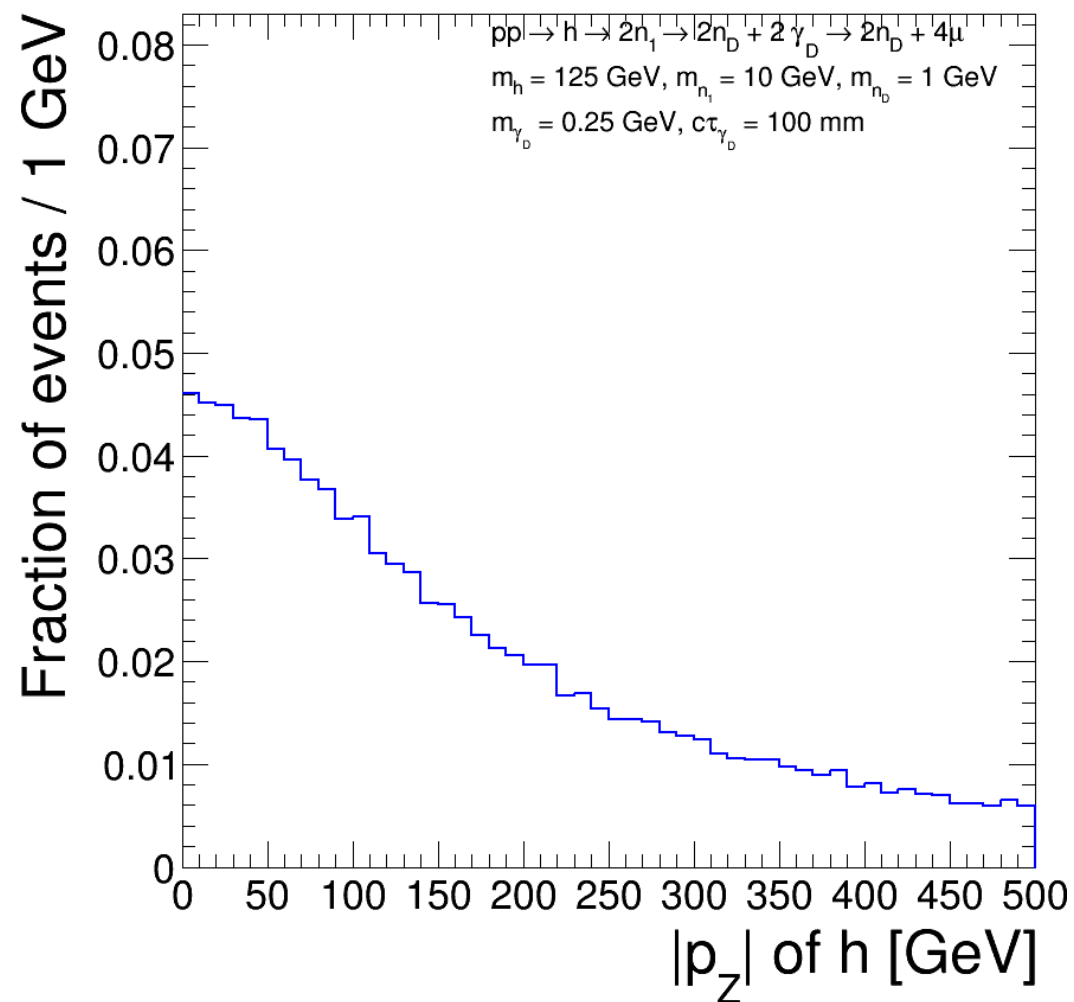
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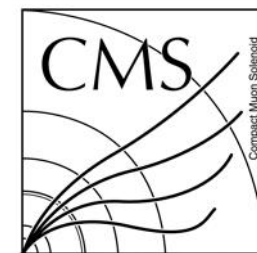
CMS Simulation (LHE) 13 TeV

CMS Simulation (LHE) 13 TeV



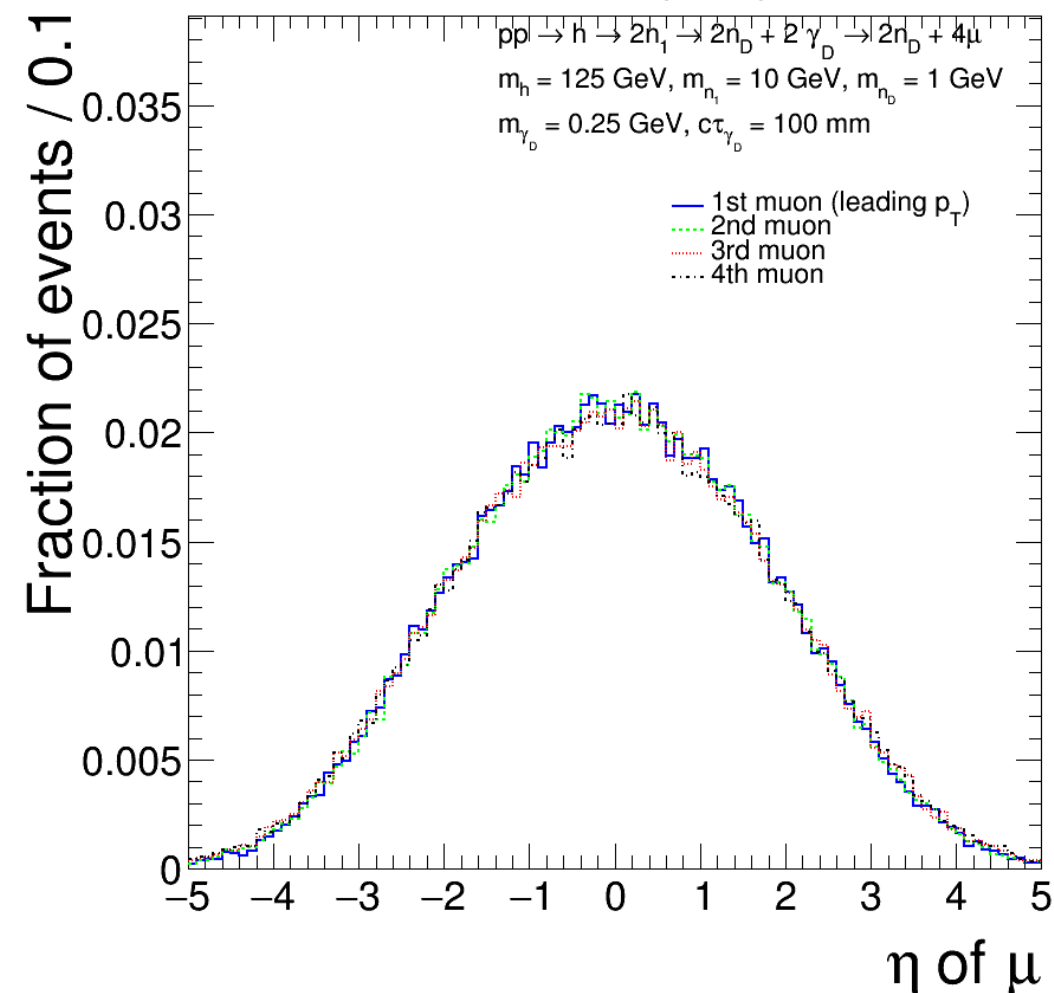
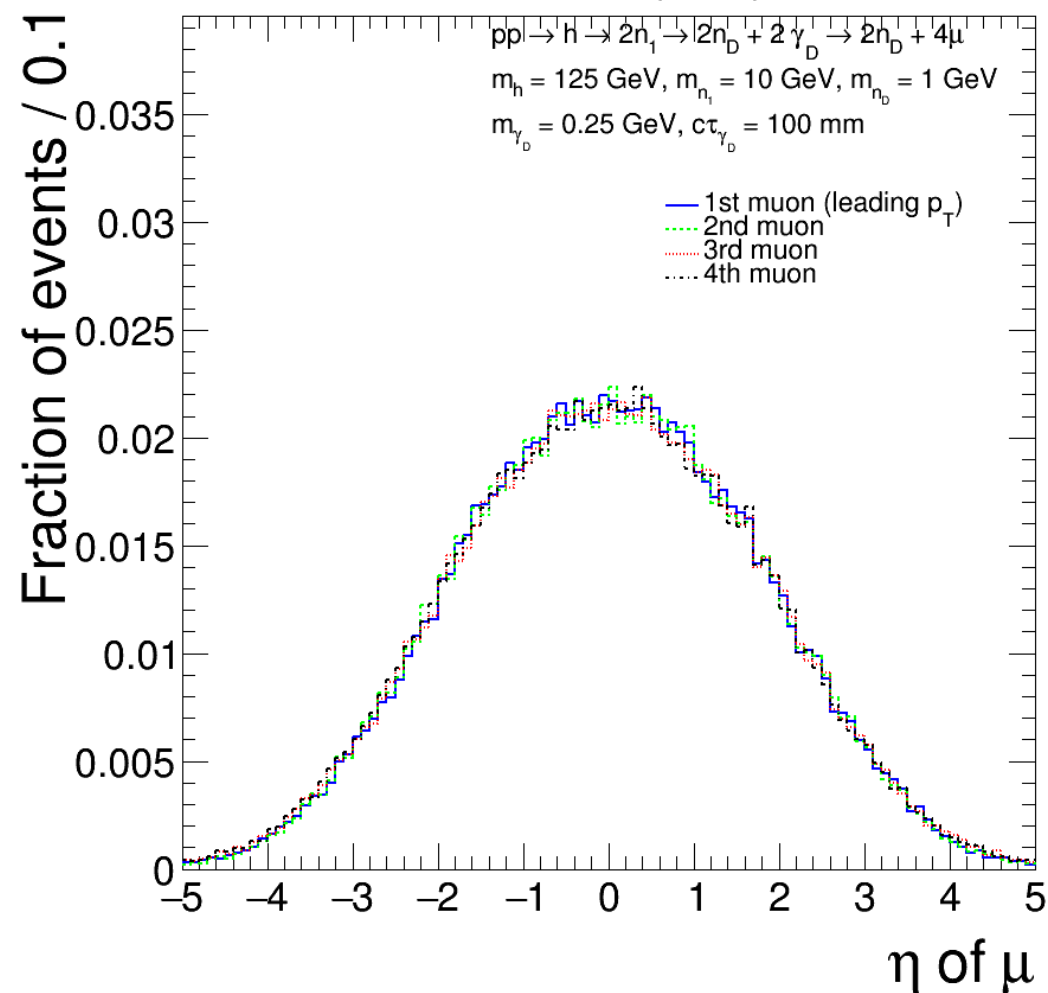
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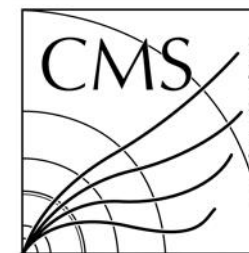
CMS Simulation (LHE) 13 TeV

CMS Simulation (LHE) 13 TeV



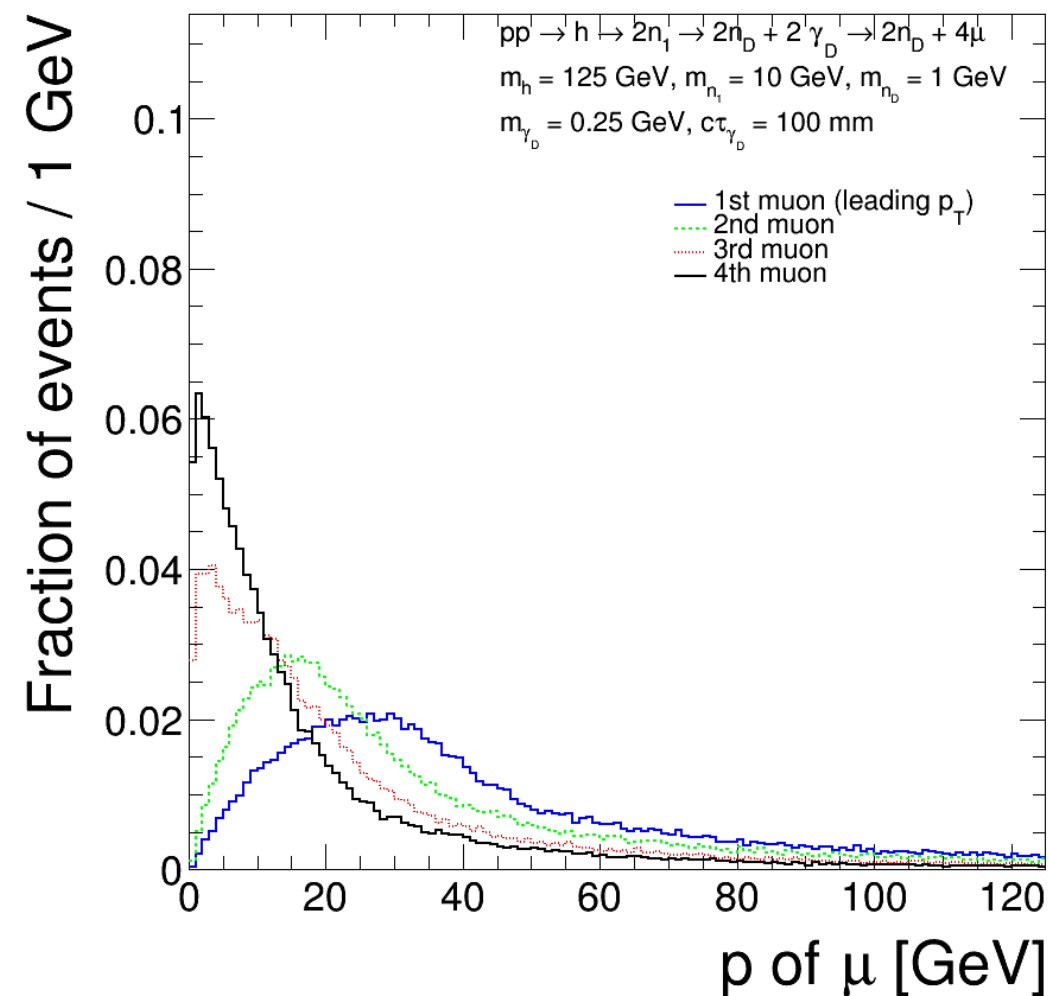
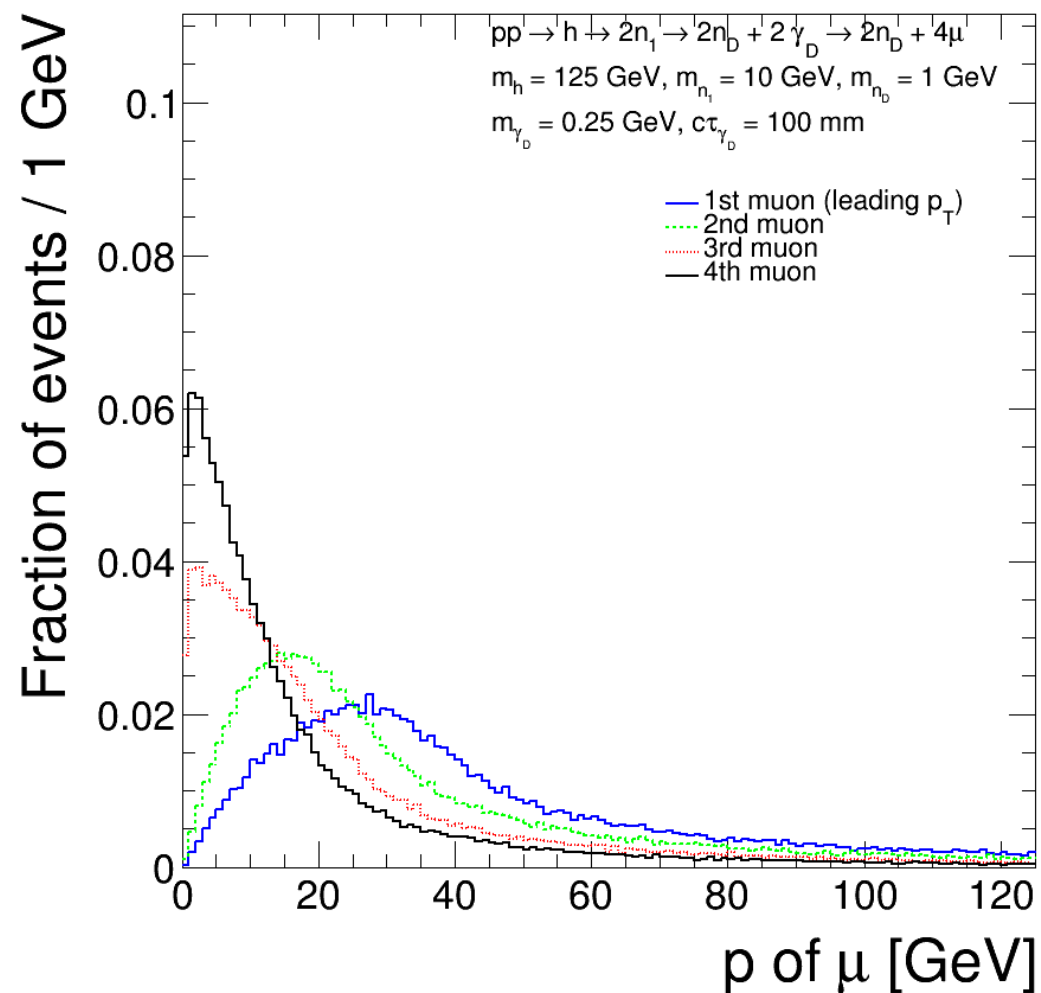
MG4

MG5



CMS Simulation (LHE) 13 TeV

CMS Simulation (LHE) 13 TeV



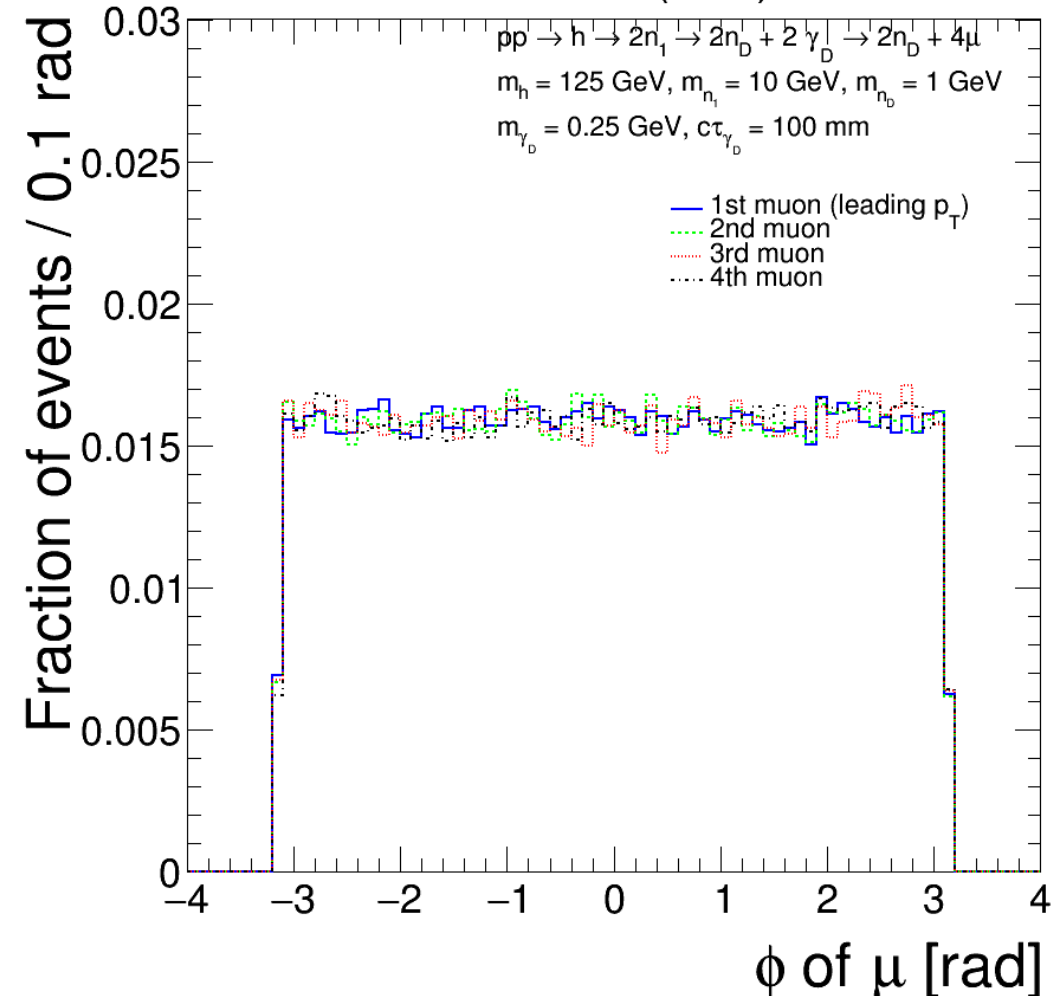
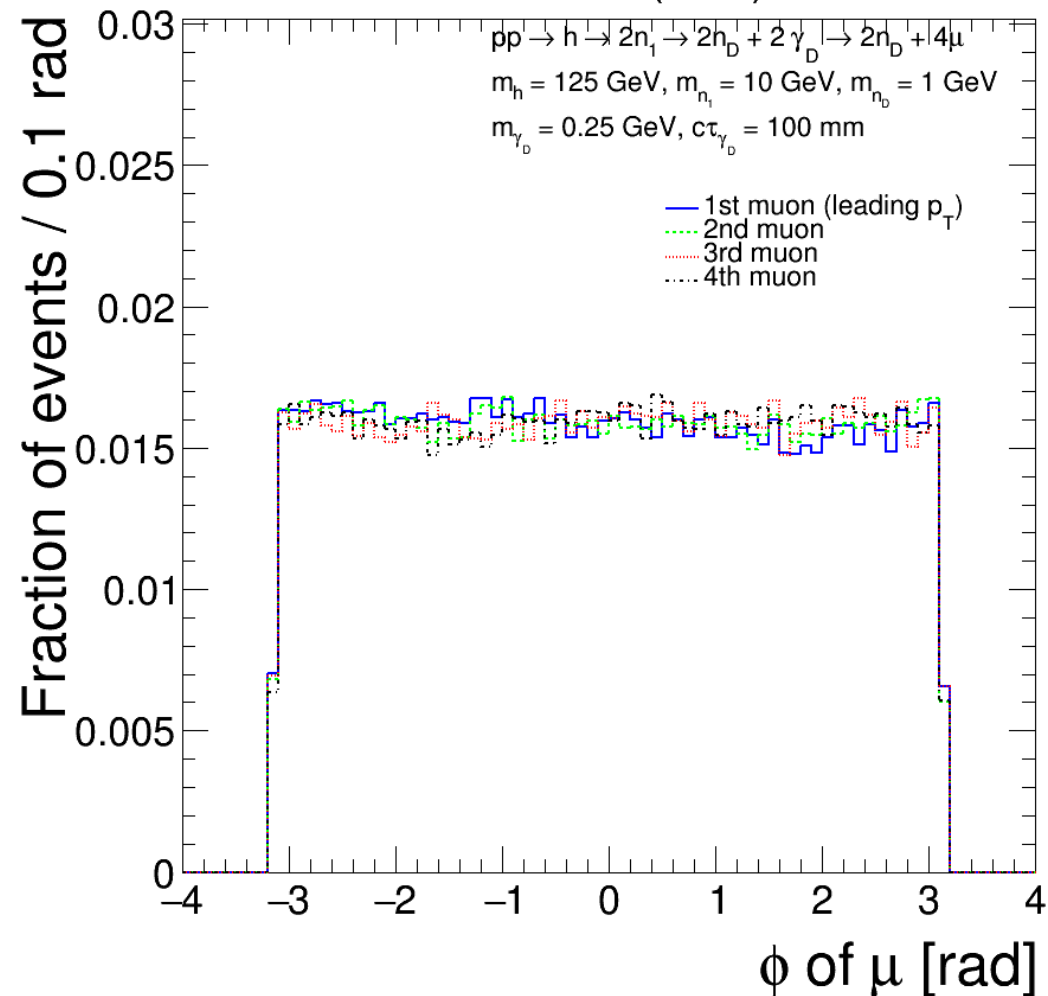
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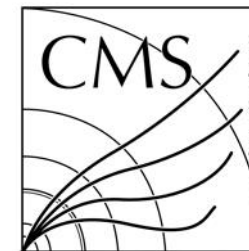
CMS Simulation (LHE) 13 TeV

CMS Simulation (LHE) 13 TeV



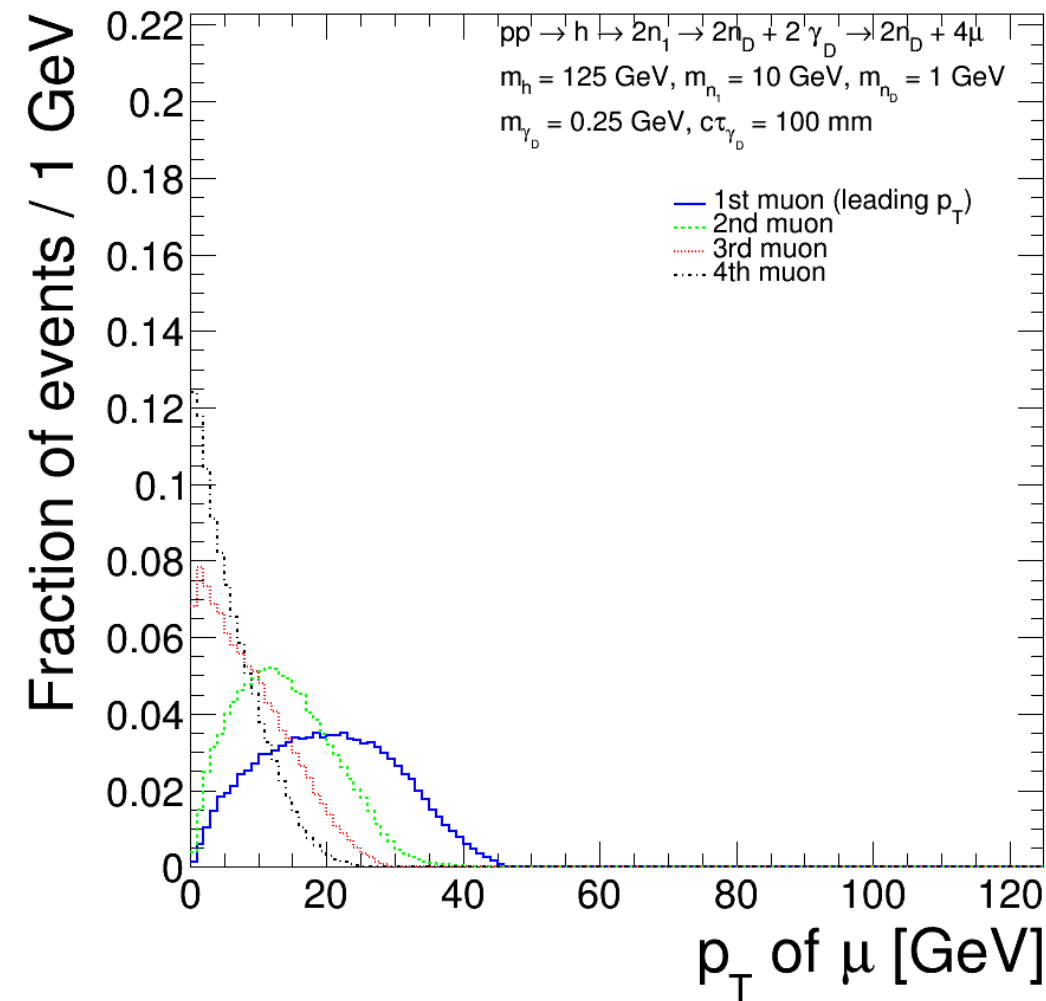
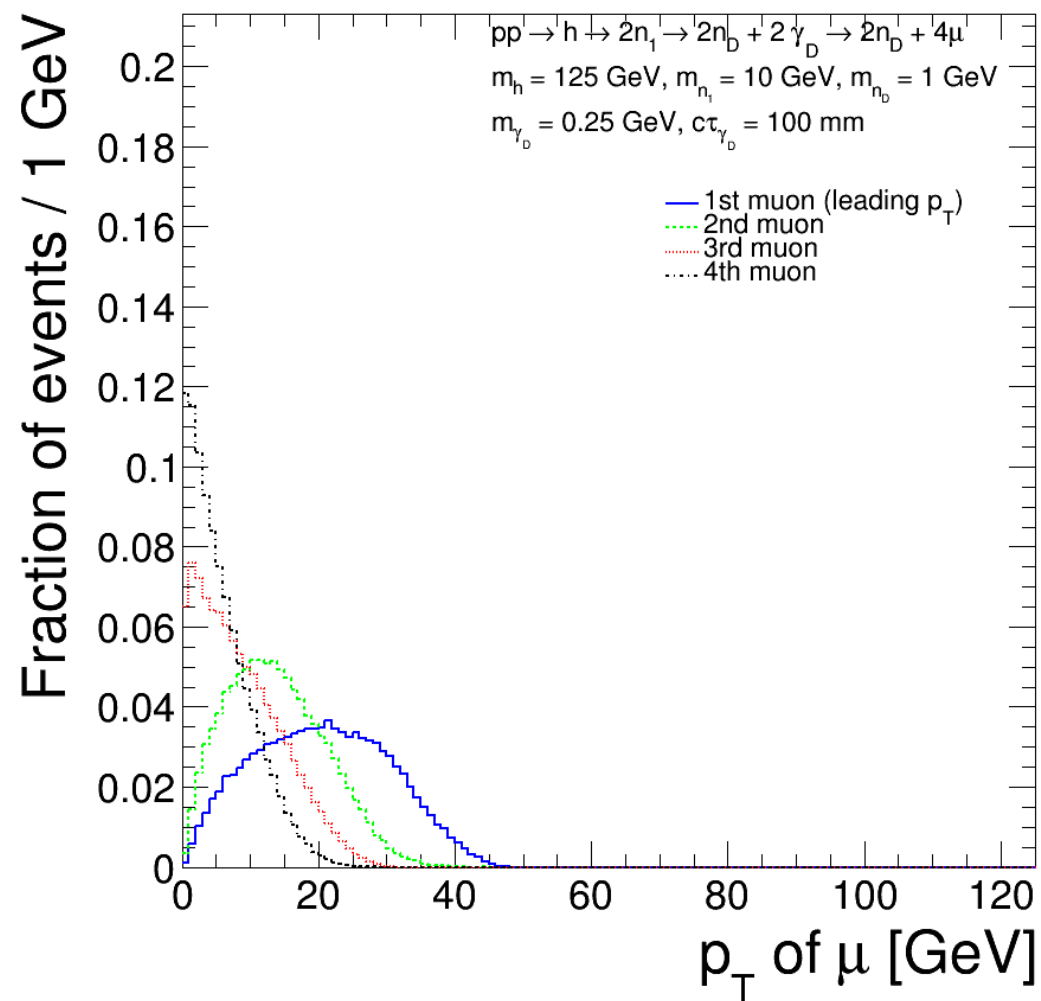
MG4

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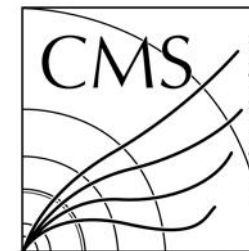
CMS Simulation (LHE) 13 TeV

CMS Simulation (LHE) 13 TeV



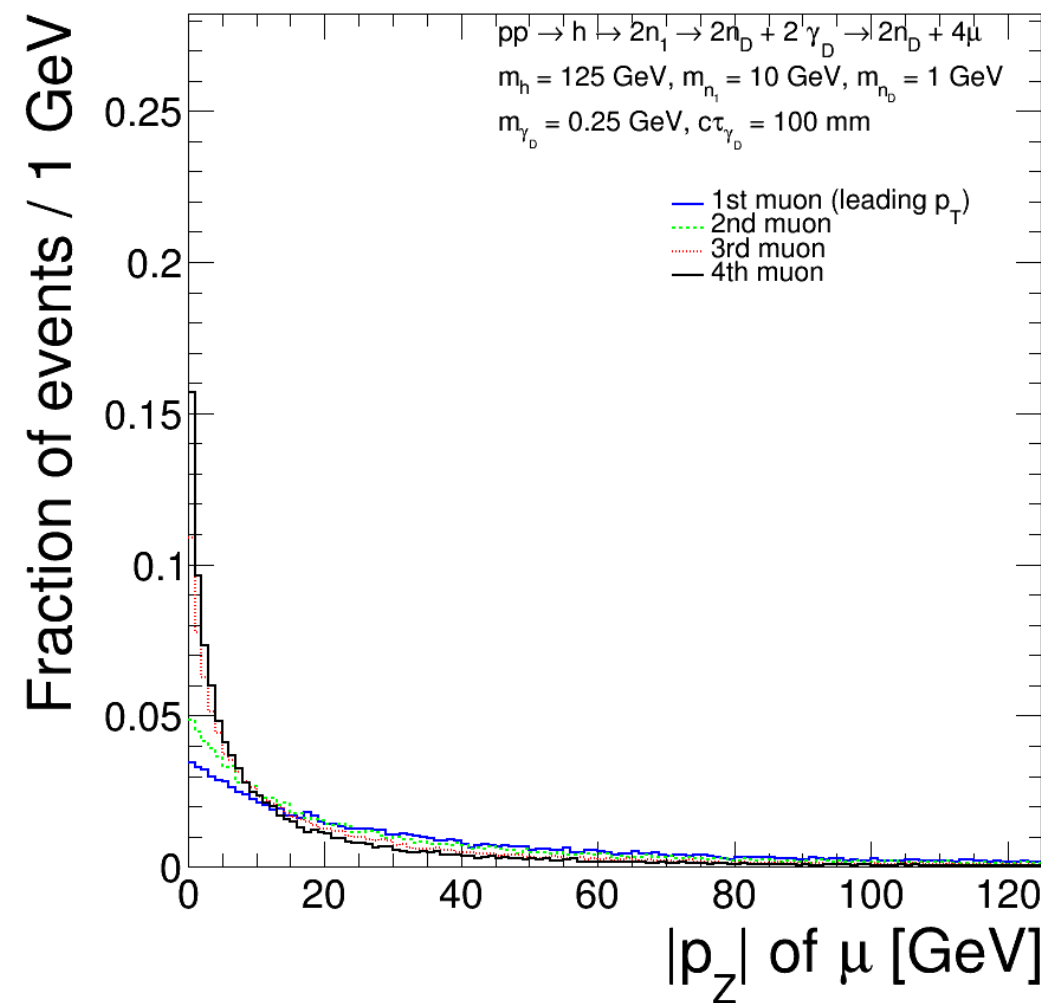
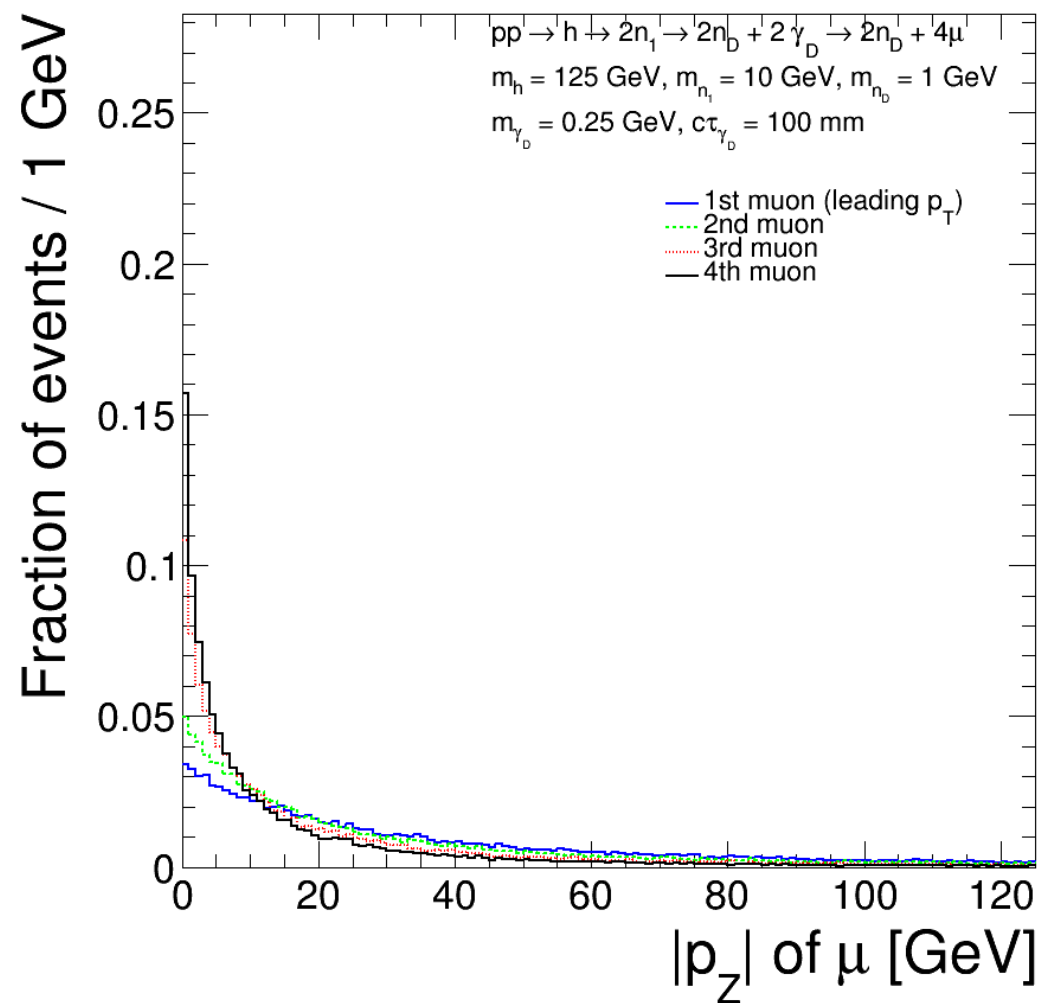
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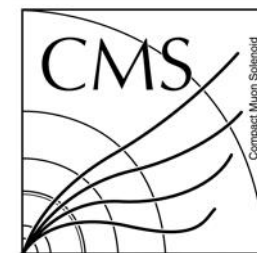
CMS Simulation (LHE) 13 TeV

CMS Simulation (LHE) 13 TeV



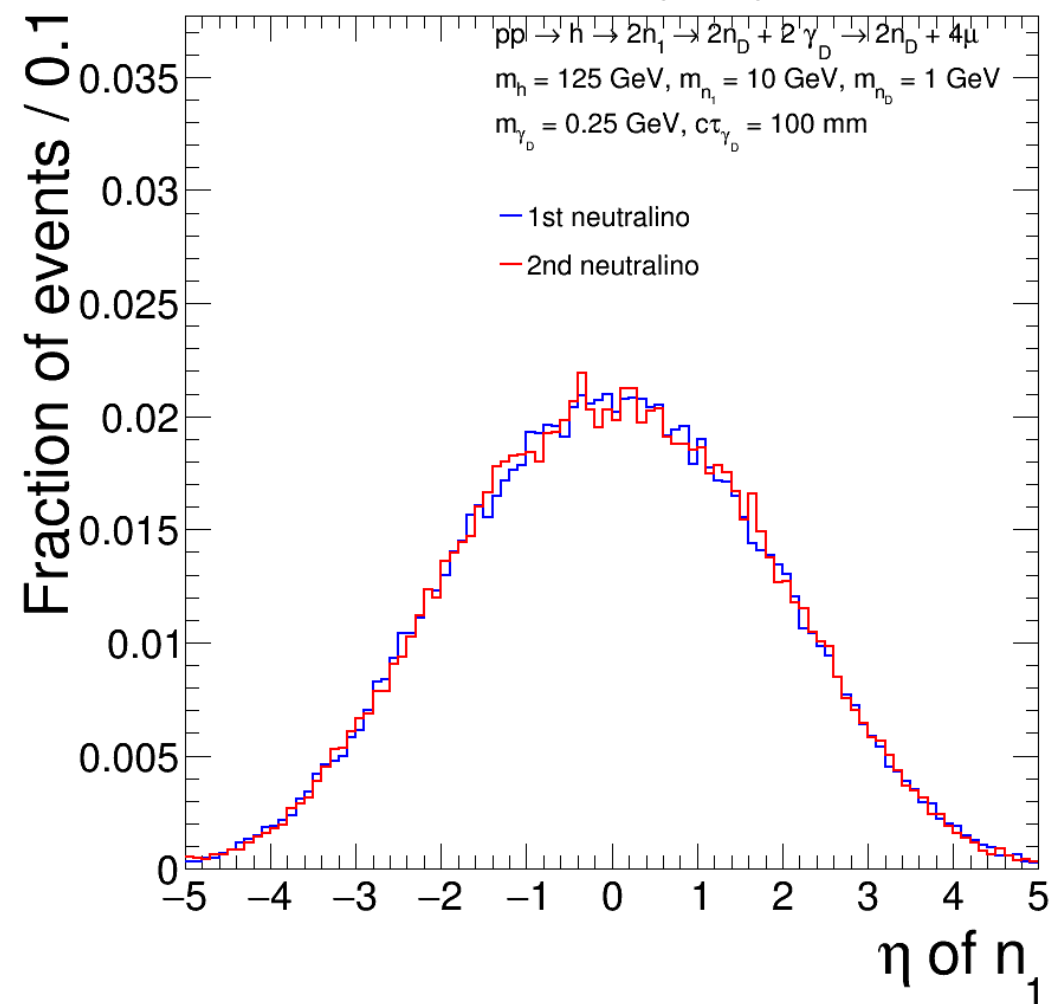
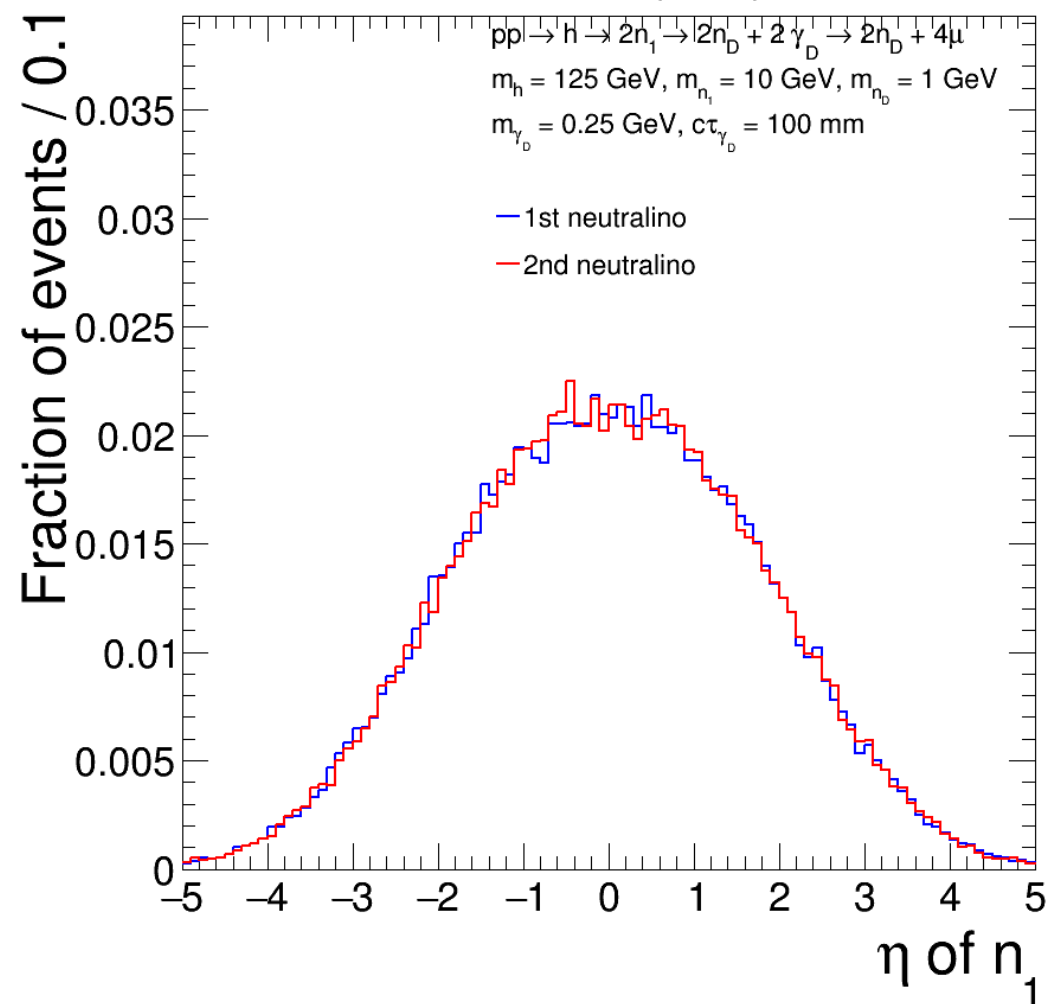
MG4

MG5

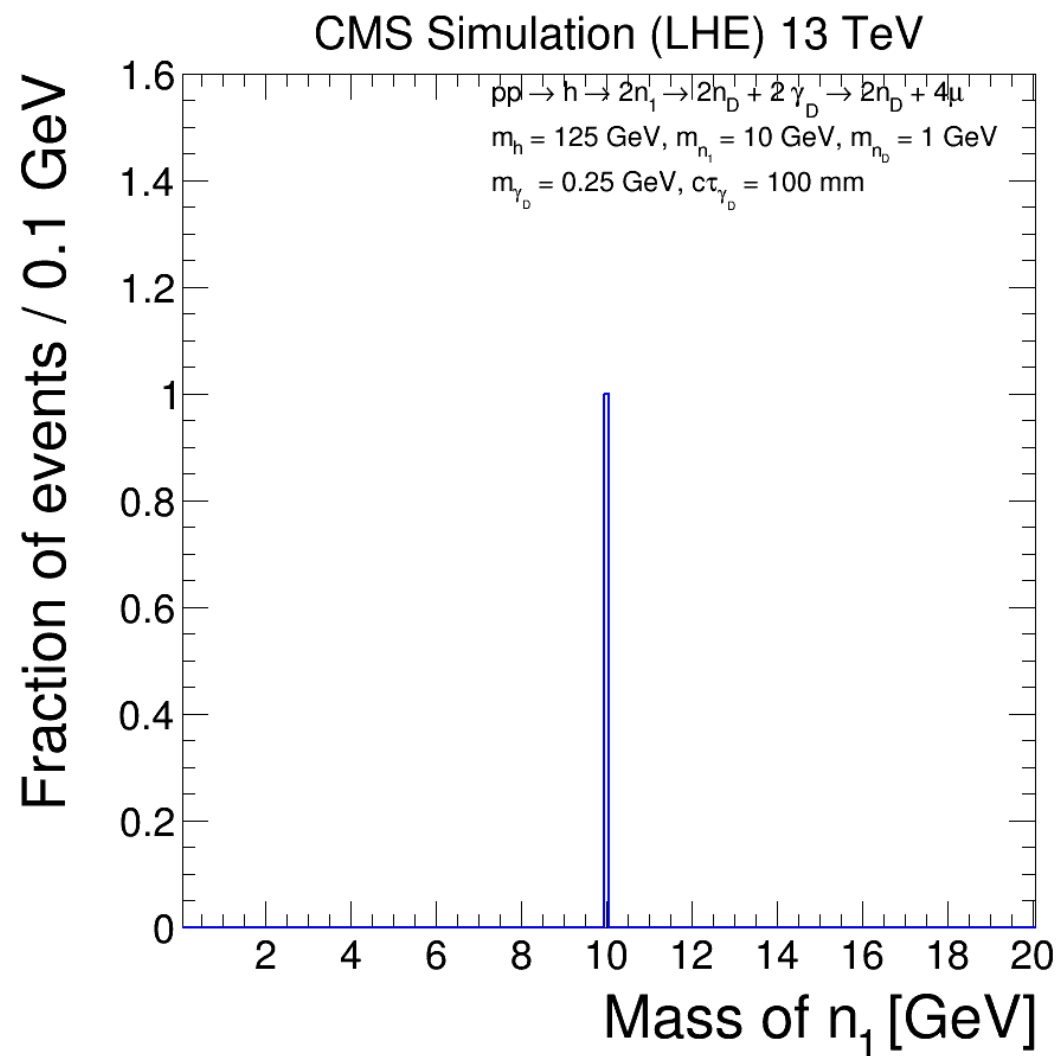


CMS Simulation (LHE) 13 TeV

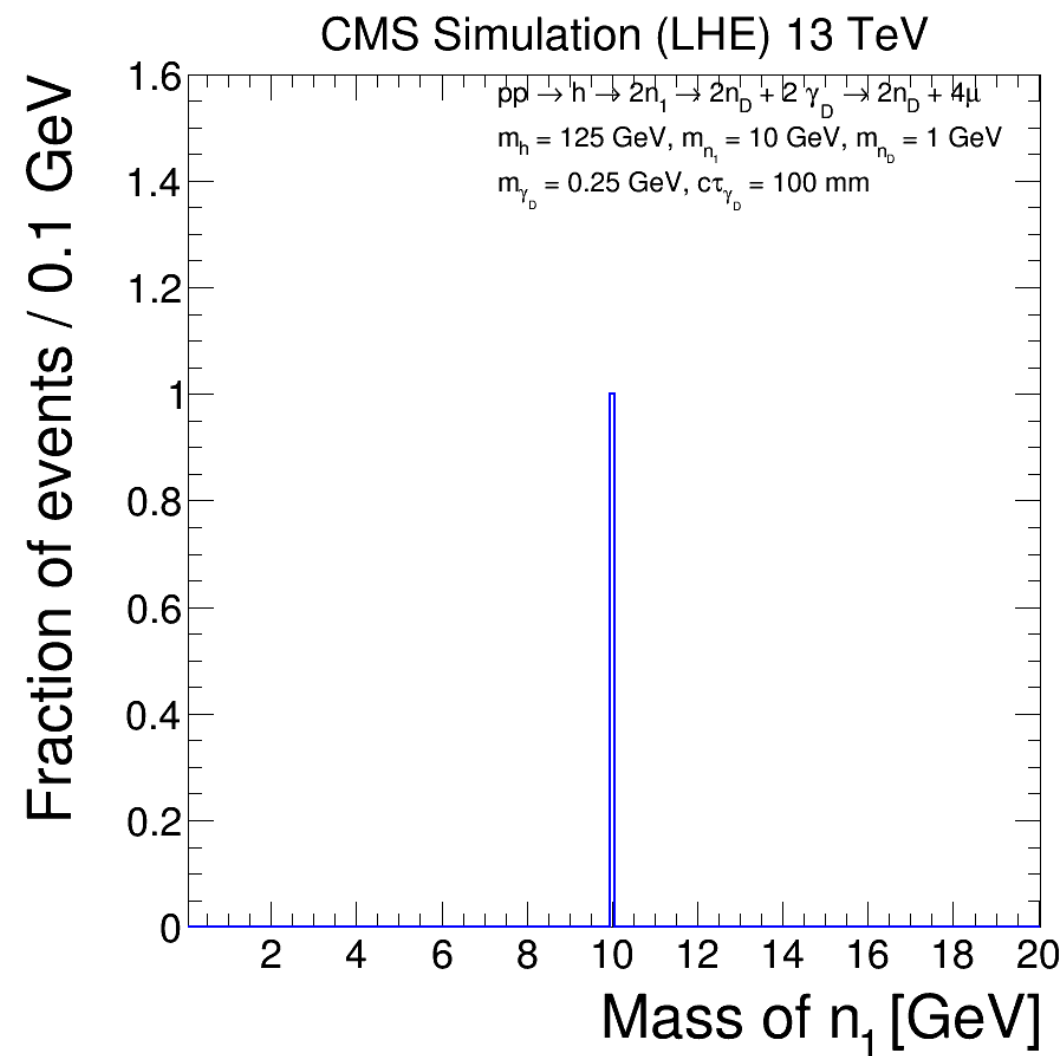
CMS Simulation (LHE) 13 TeV



MG4

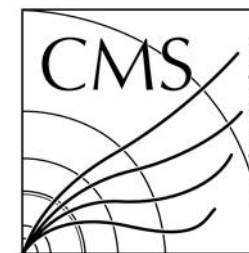


MG5



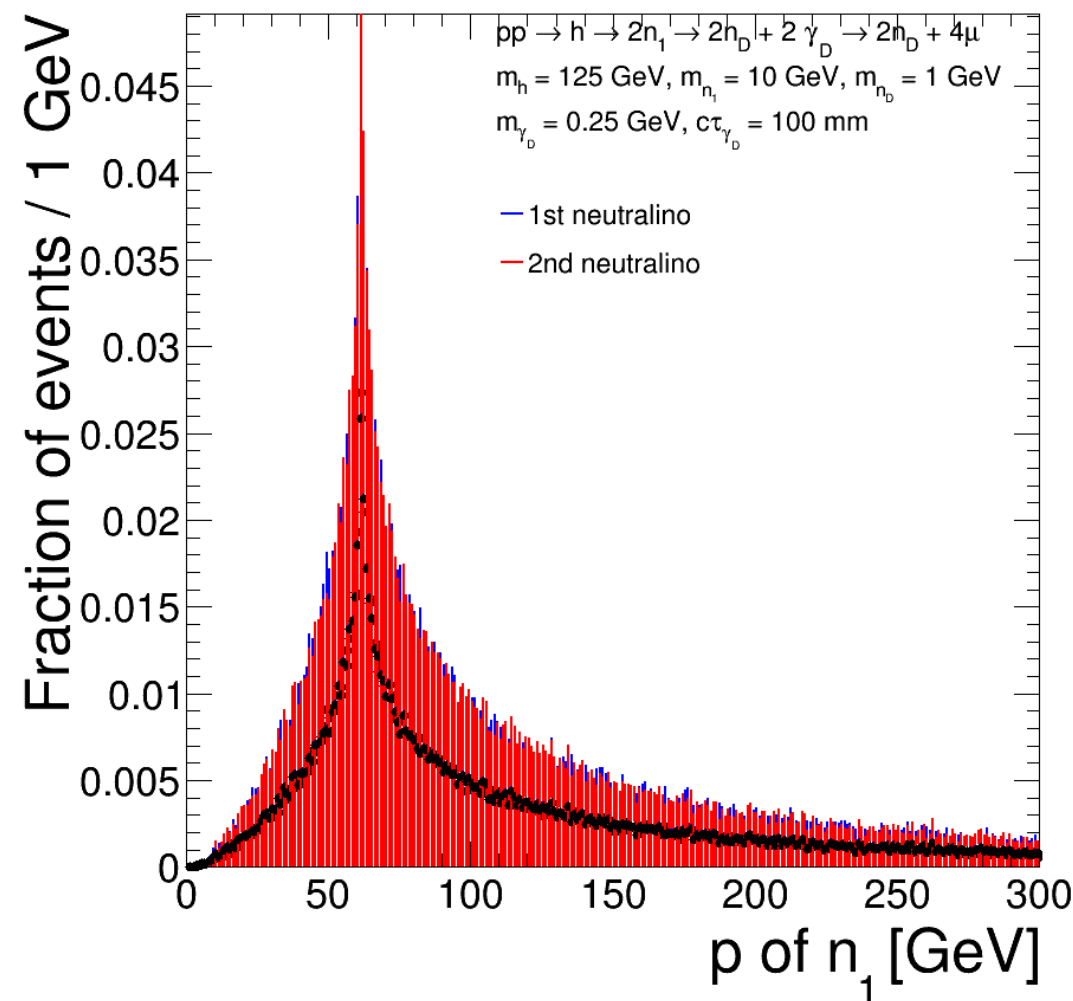
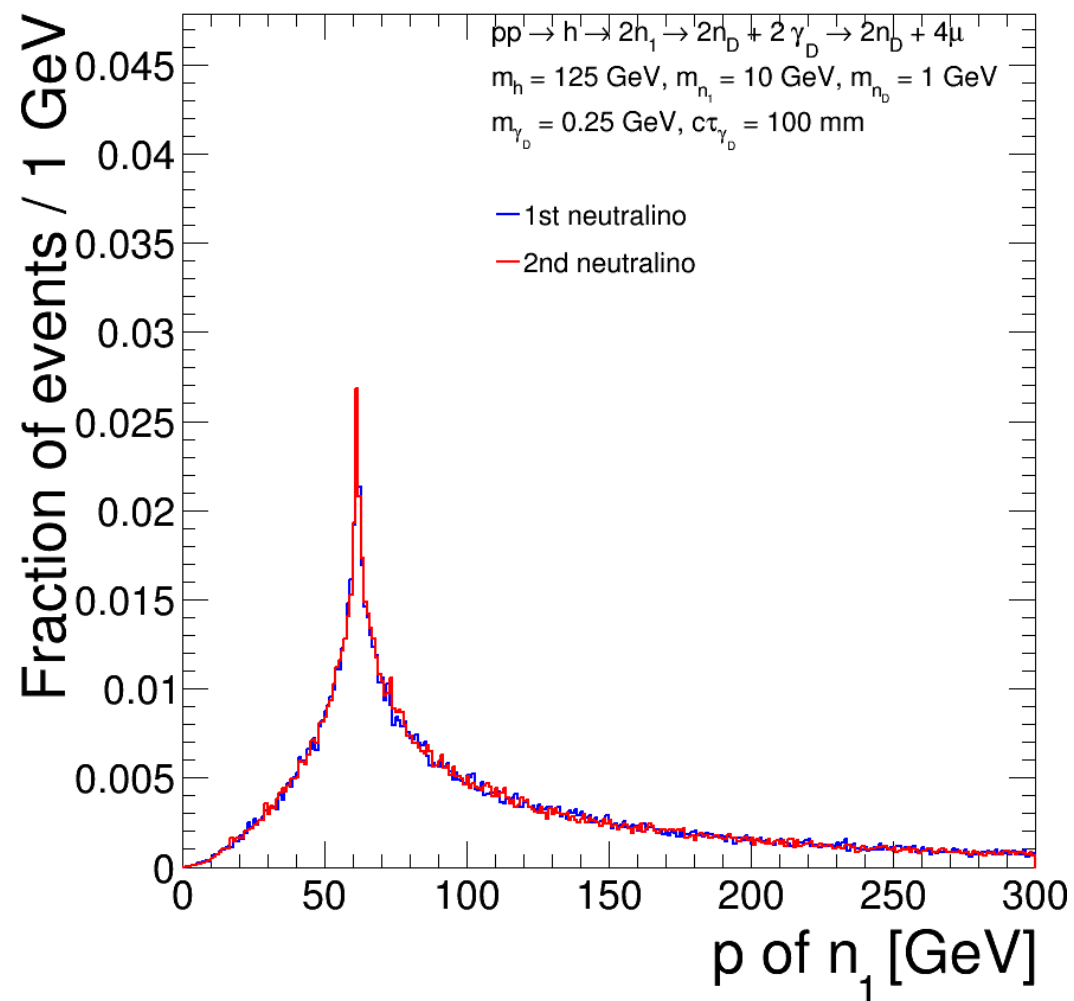
MG4

MG5



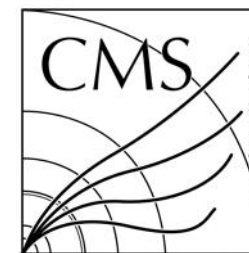
CMS Simulation (LHE) 13 TeV

CMS Simulation (LHE) 13 TeV



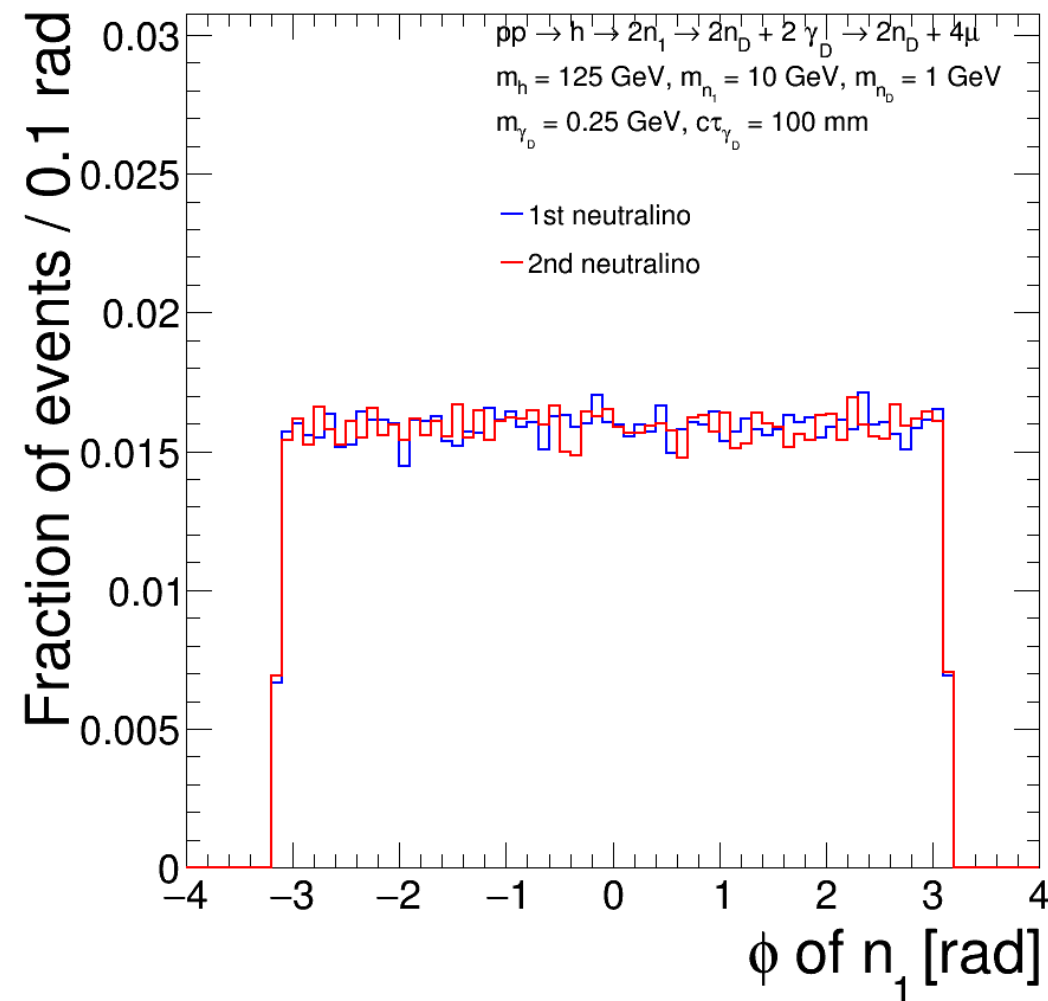
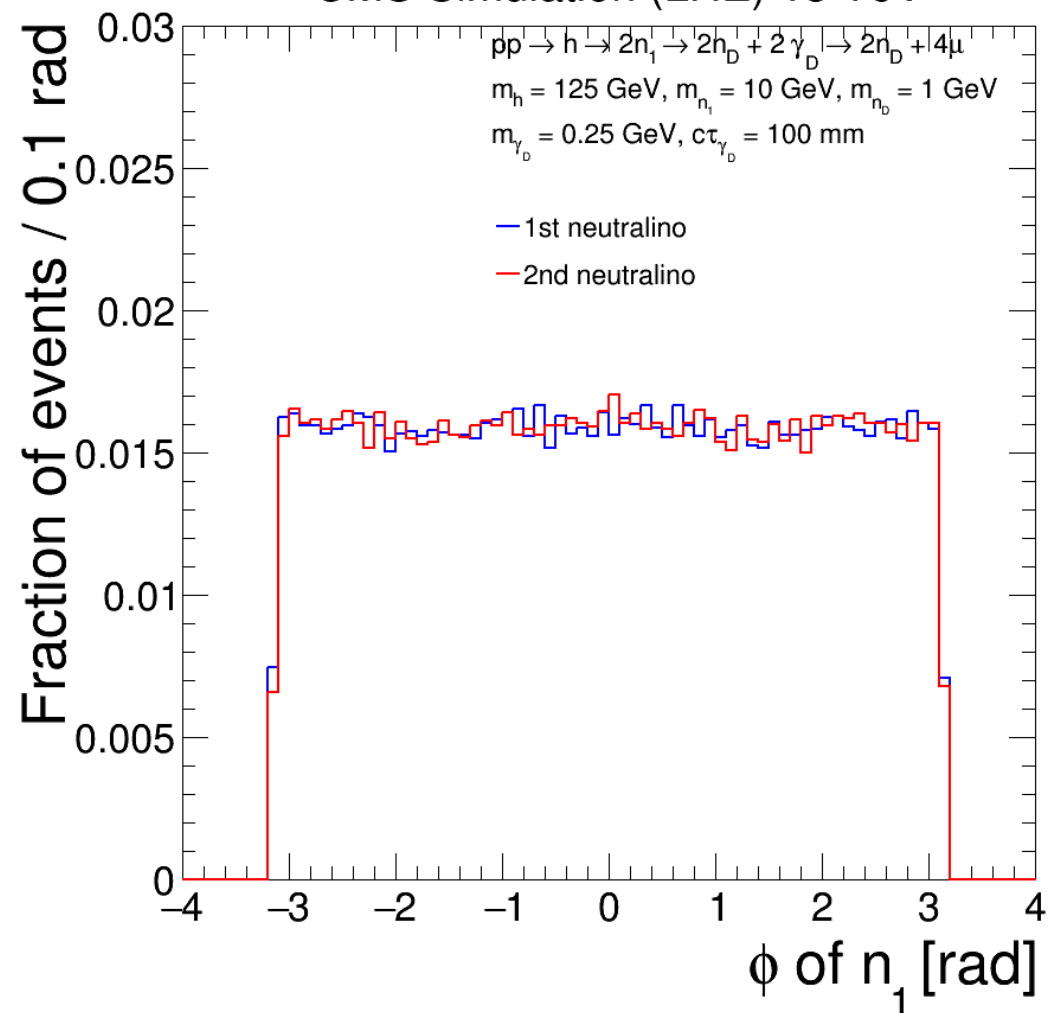
MG4

MG5



CMS Simulation (LHE) 13 TeV

CMS Simulation (LHE) 13 TeV



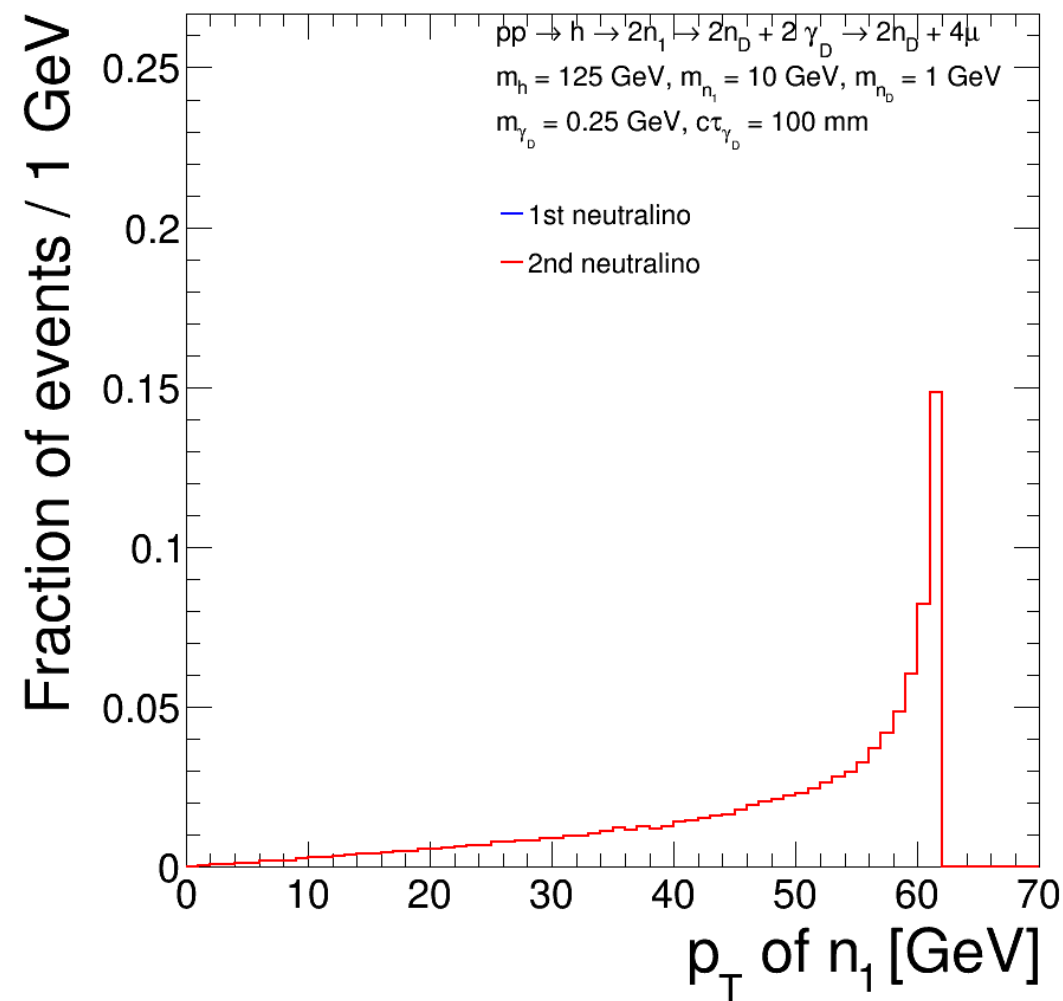
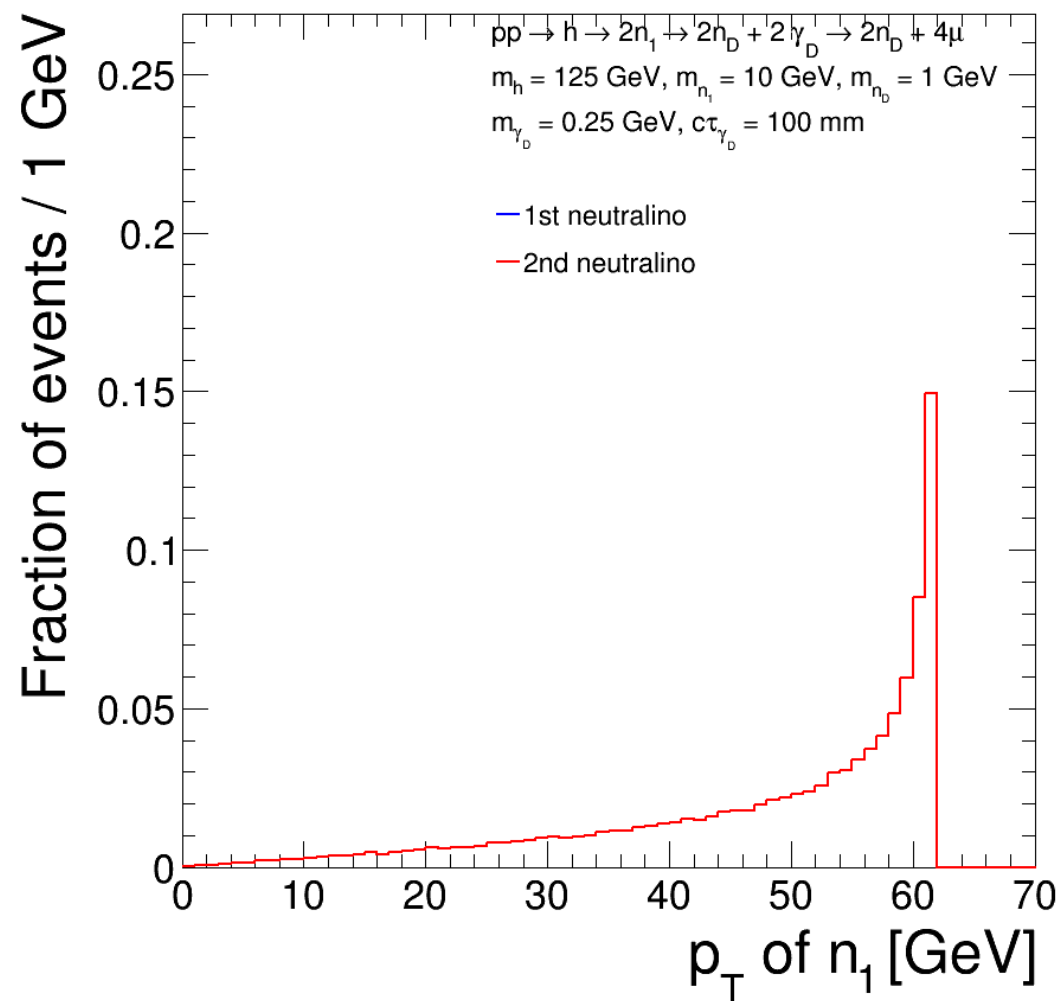
MG4

MG5



CMS Simulation (LHE) 13 TeV

CMS Simulation (LHE) 13 TeV



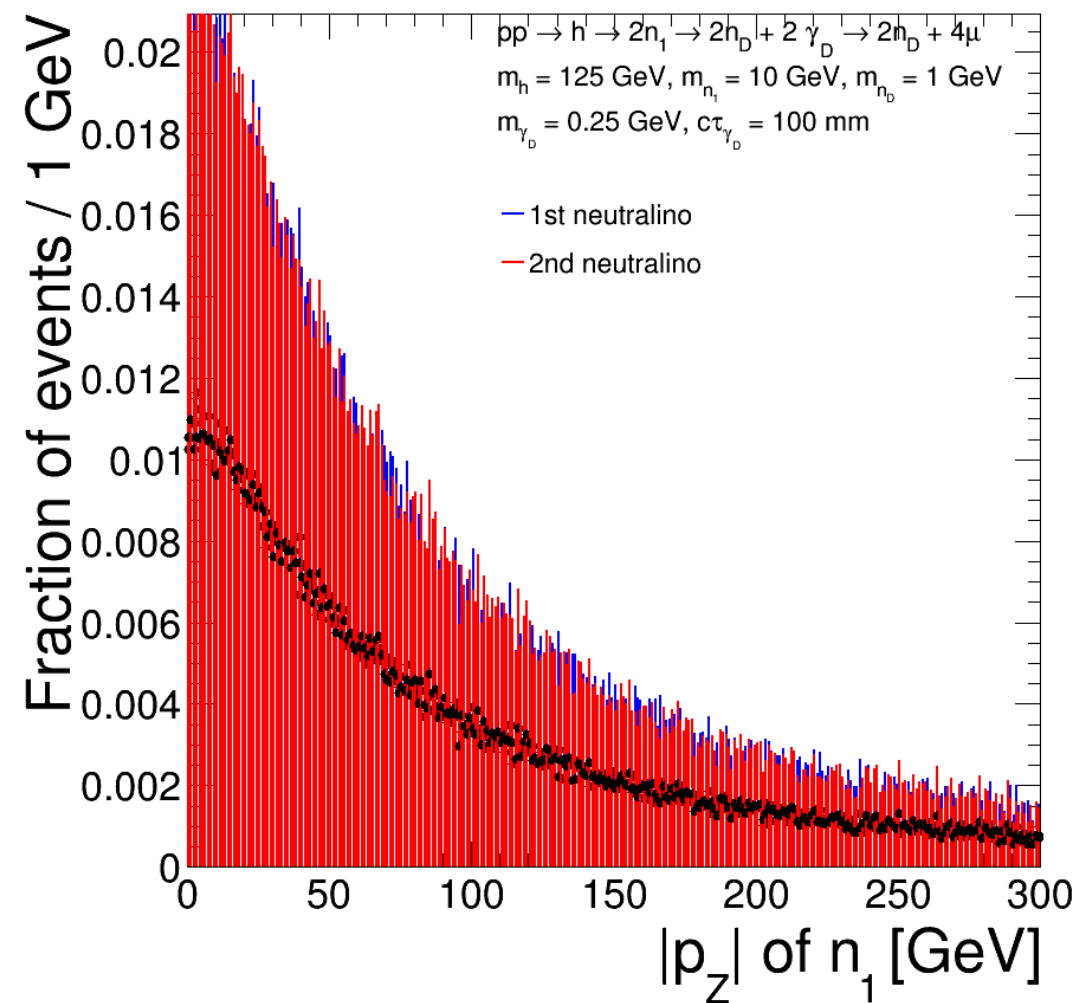
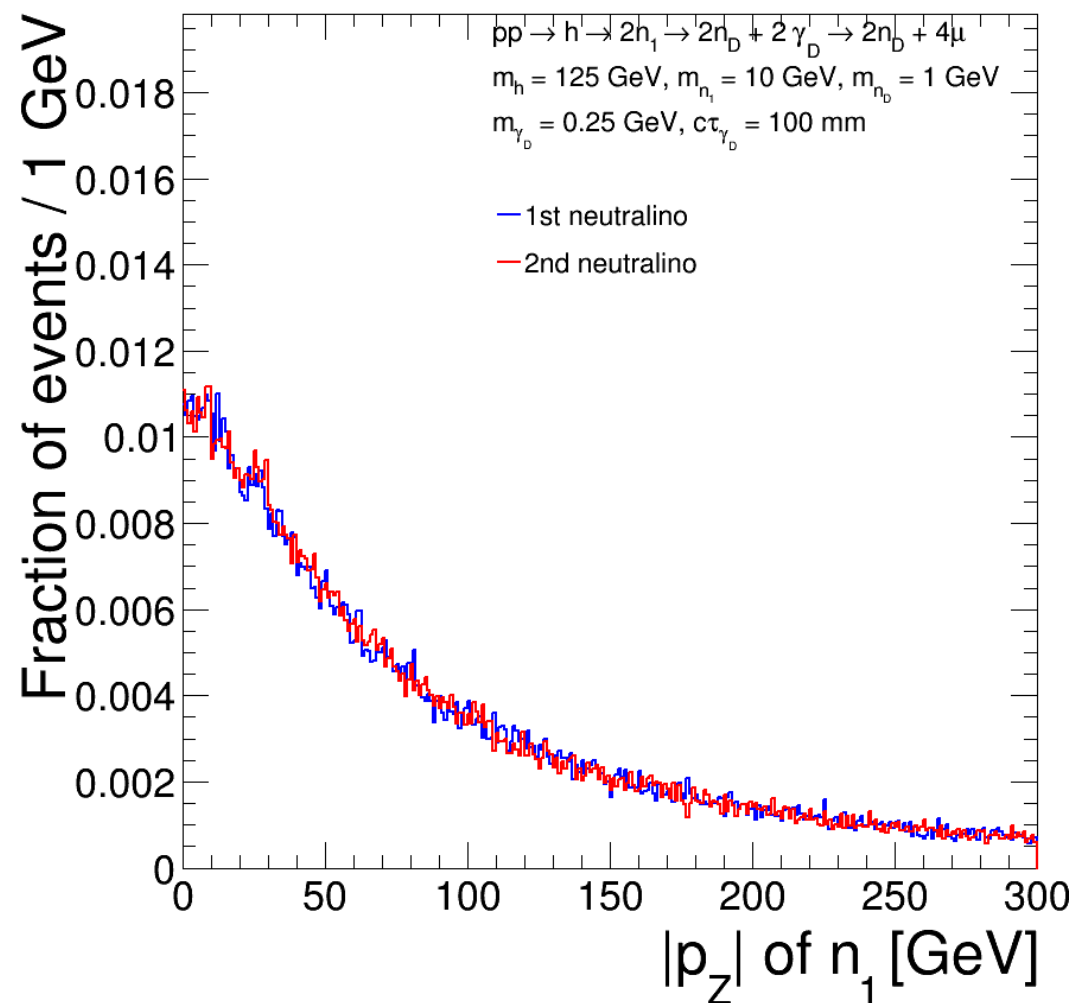
MG4

MG5



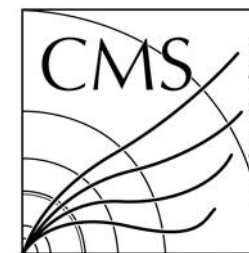
CMS Simulation (LHE) 13 TeV

CMS Simulation (LHE) 13 TeV



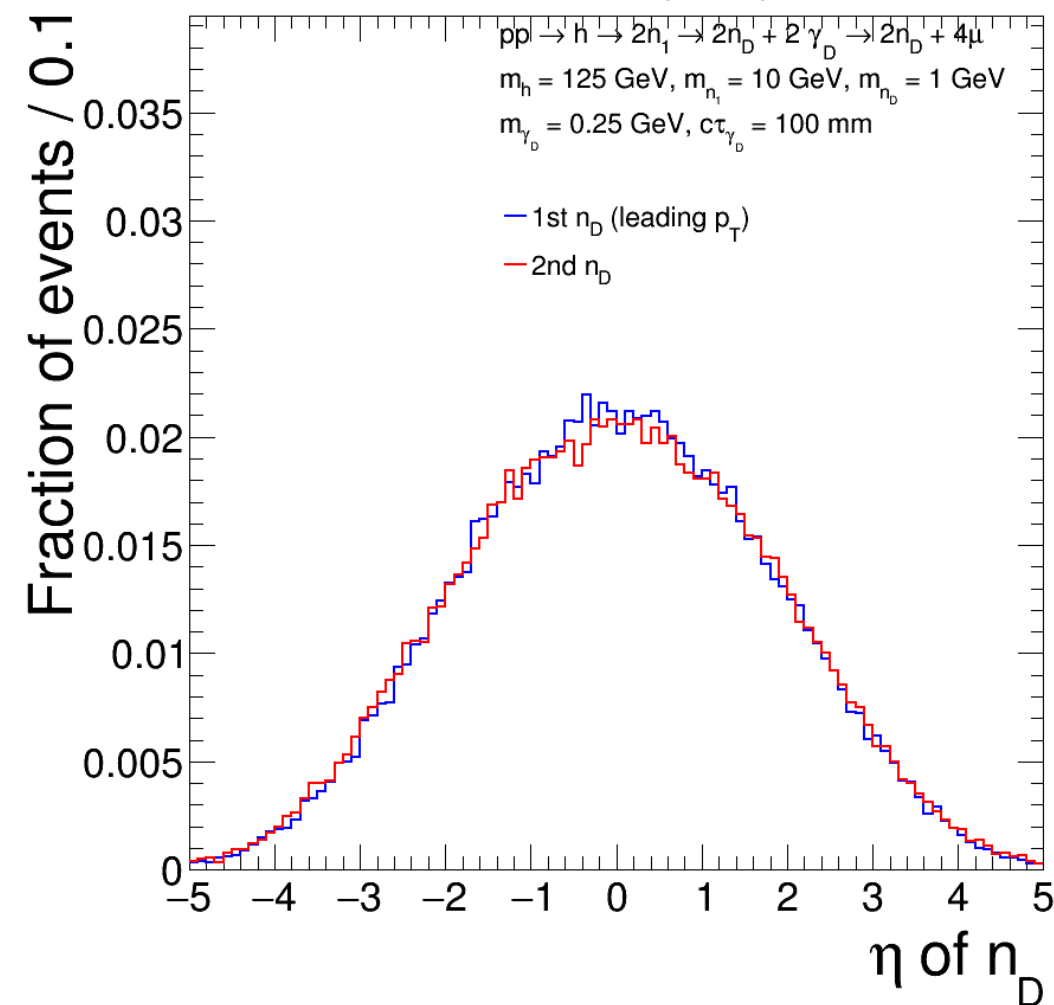
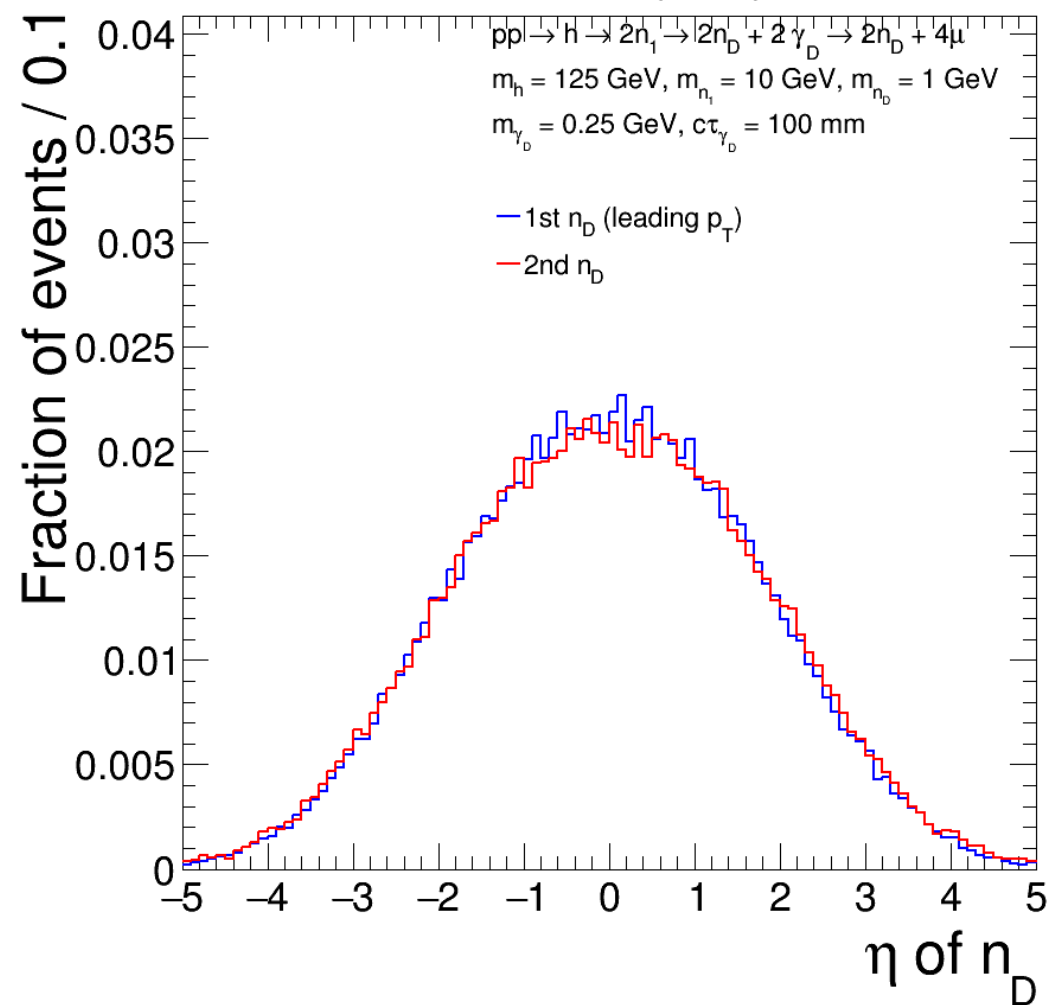
MG4

MG5

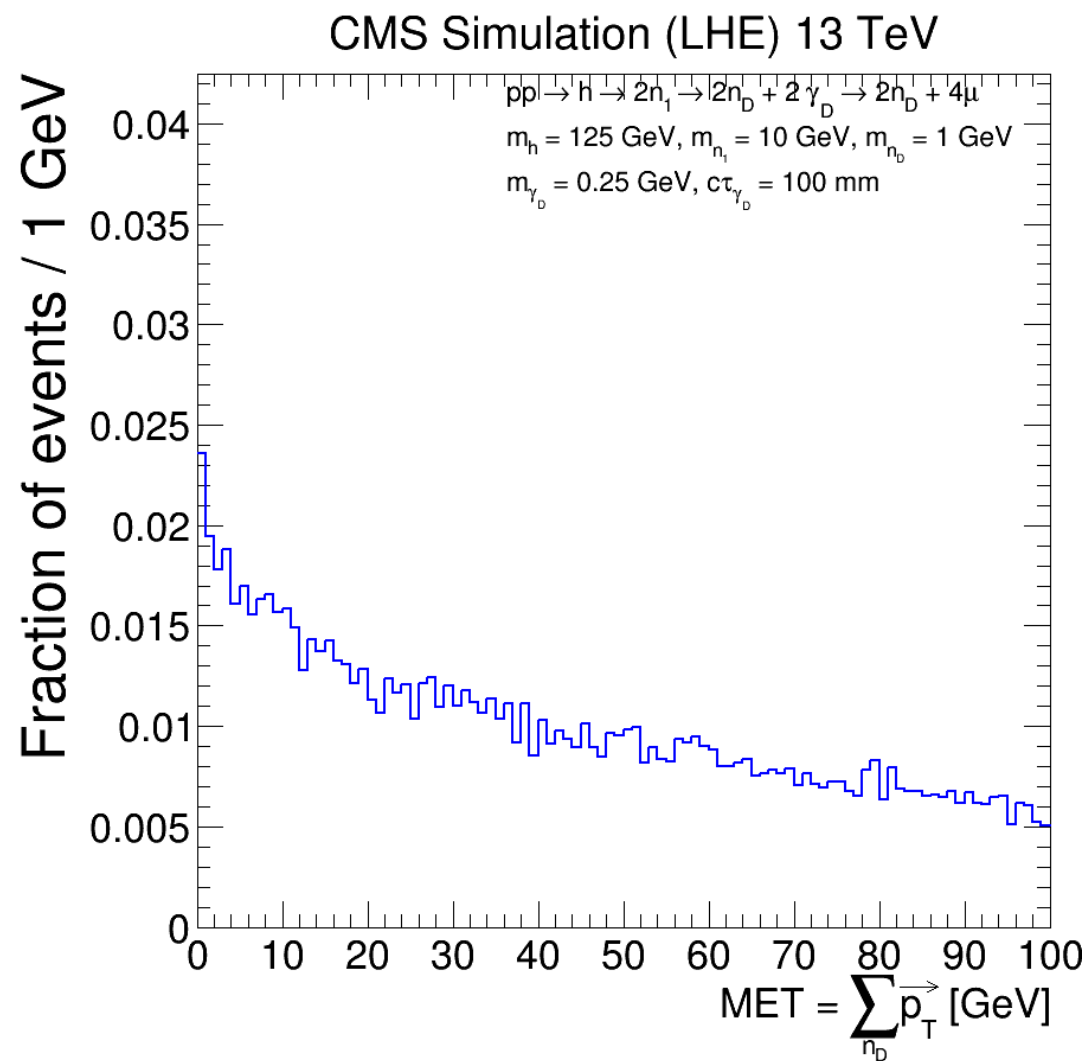


CMS Simulation (LHE) 13 TeV

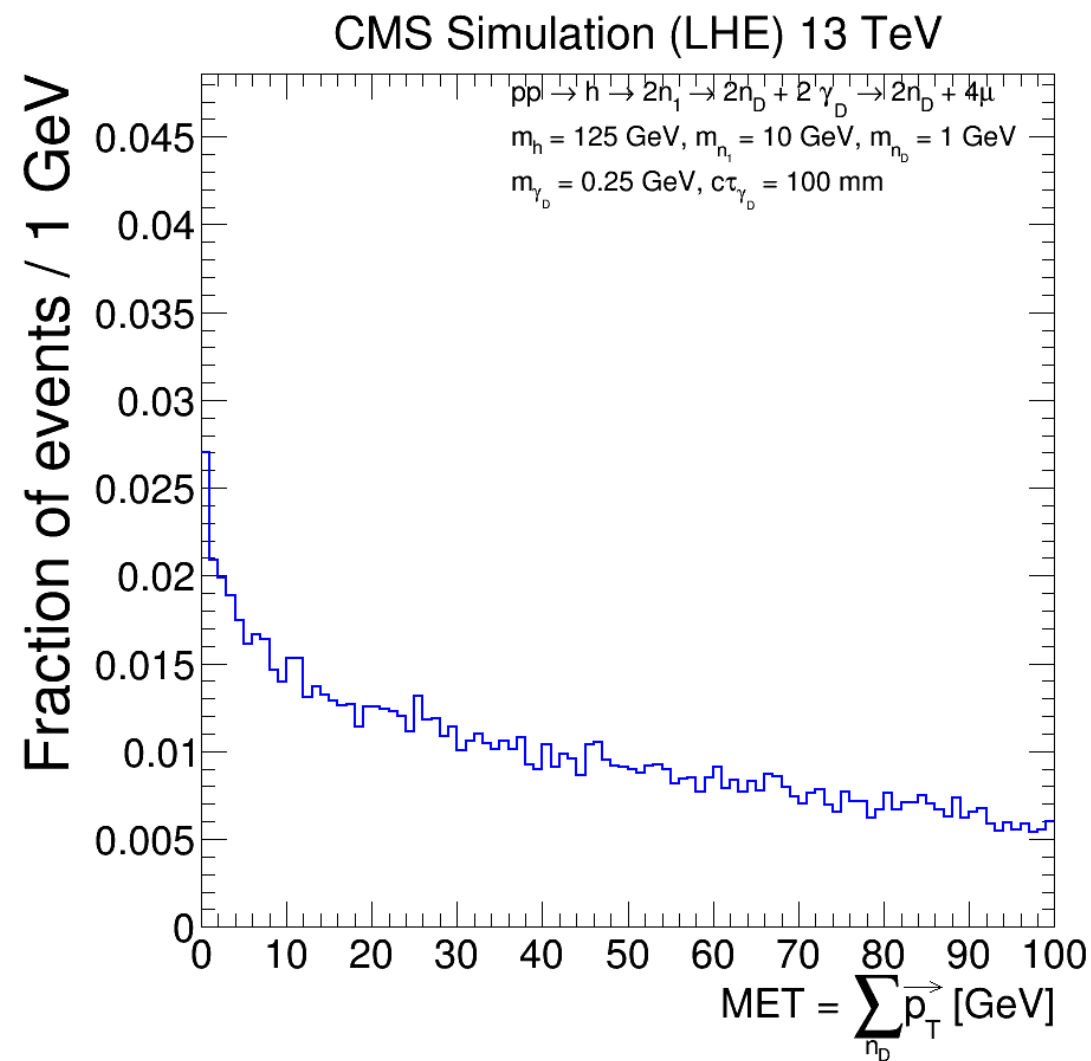
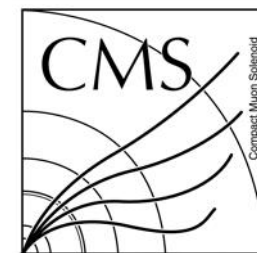
CMS Simulation (LHE) 13 TeV



MG4

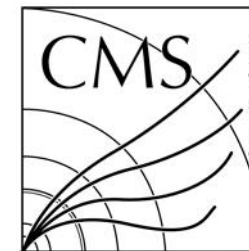


MG5



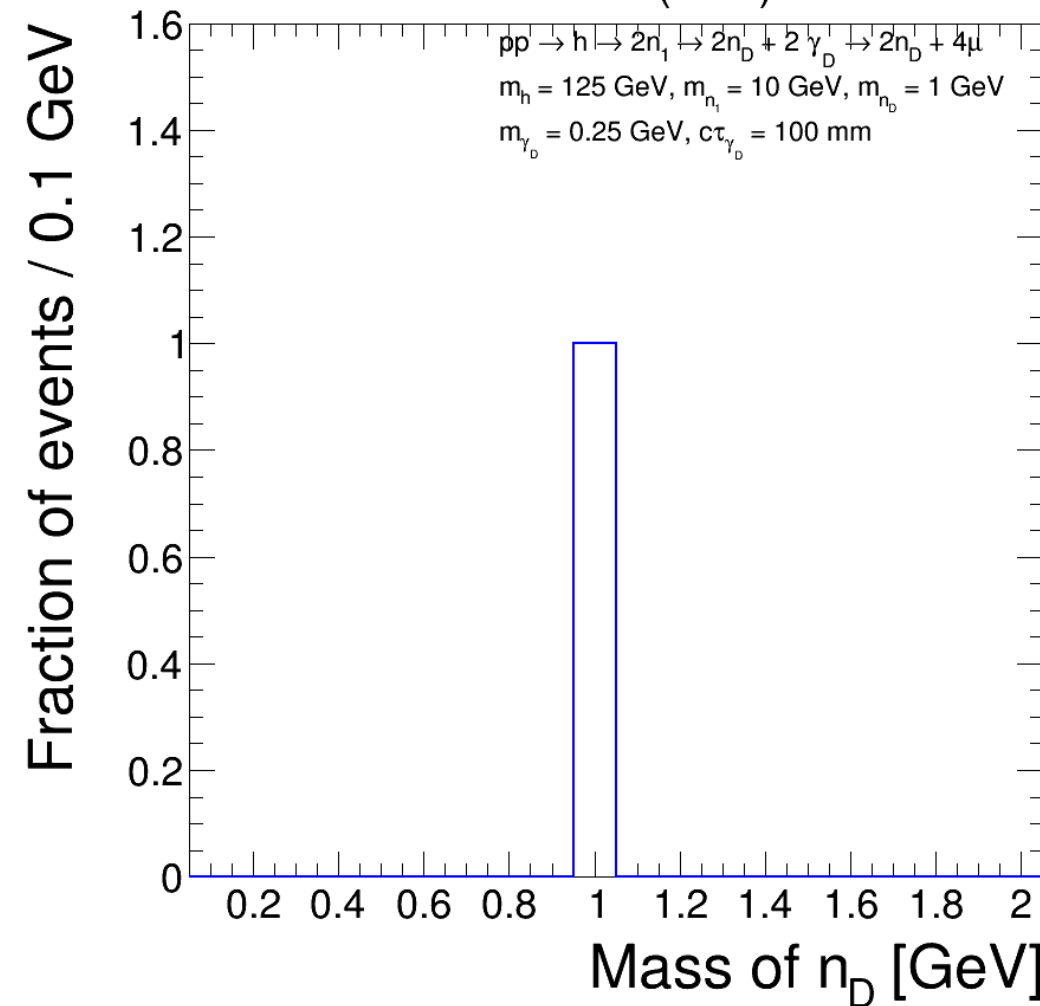
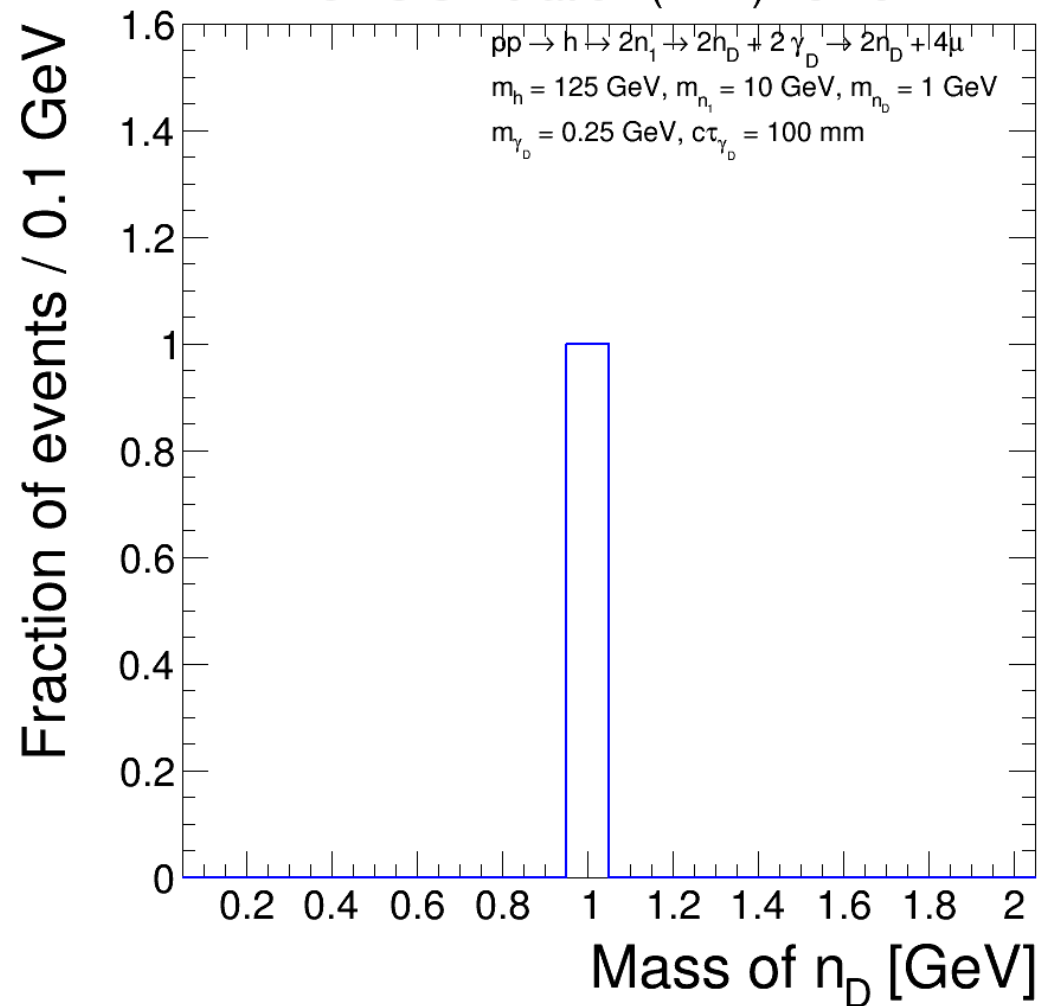
MG4

MG5



CMS Simulation (LHE) 13 TeV

CMS Simulation (LHE) 13 TeV



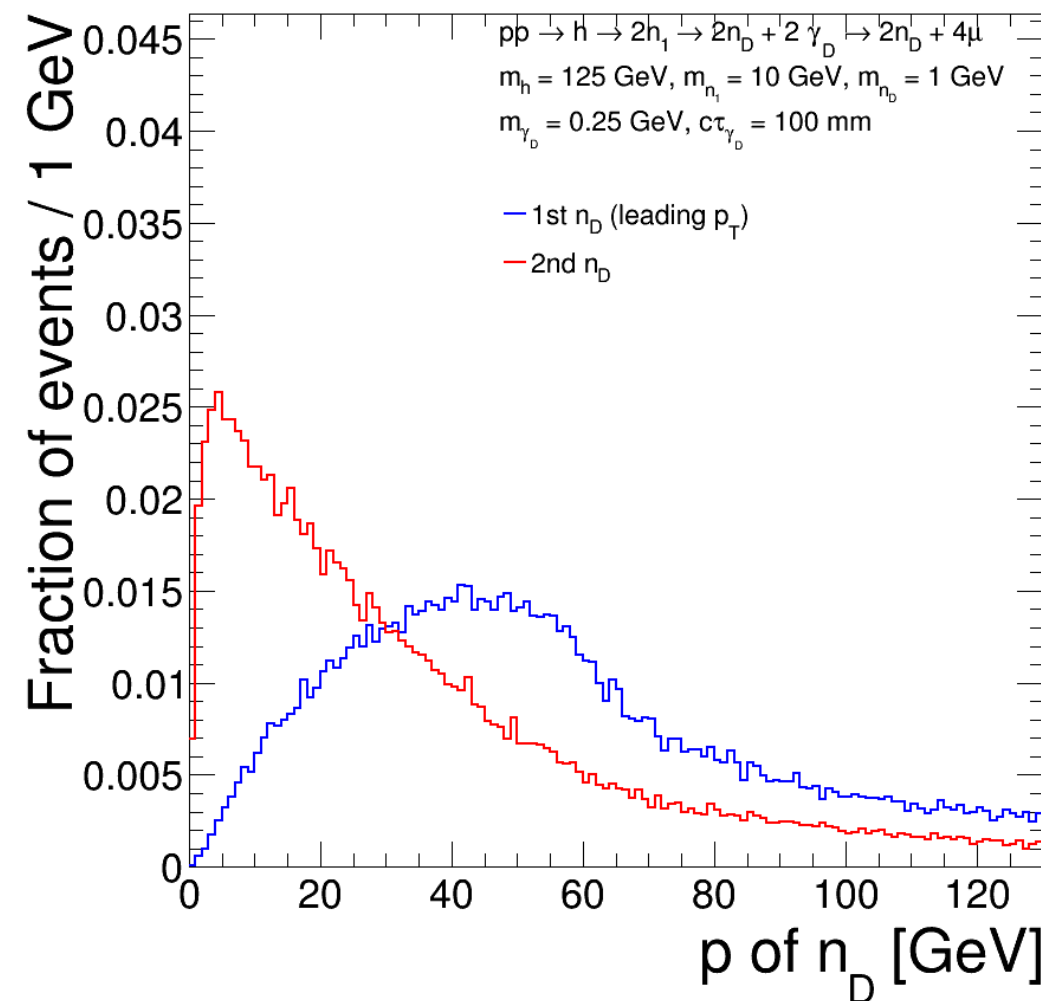
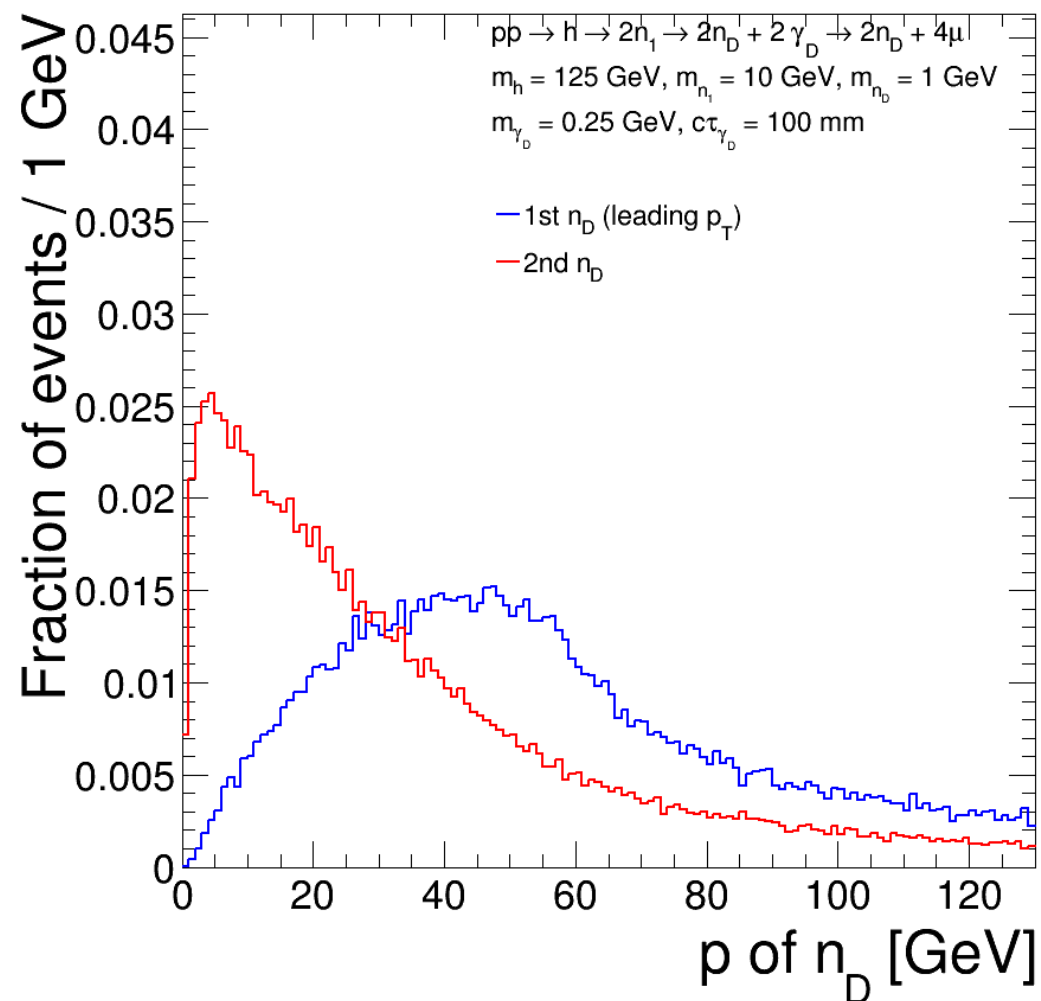
MG4

MG5



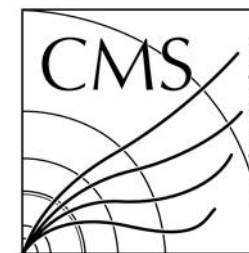
CMS Simulation (LHE) 13 TeV

CMS Simulation (LHE) 13 TeV



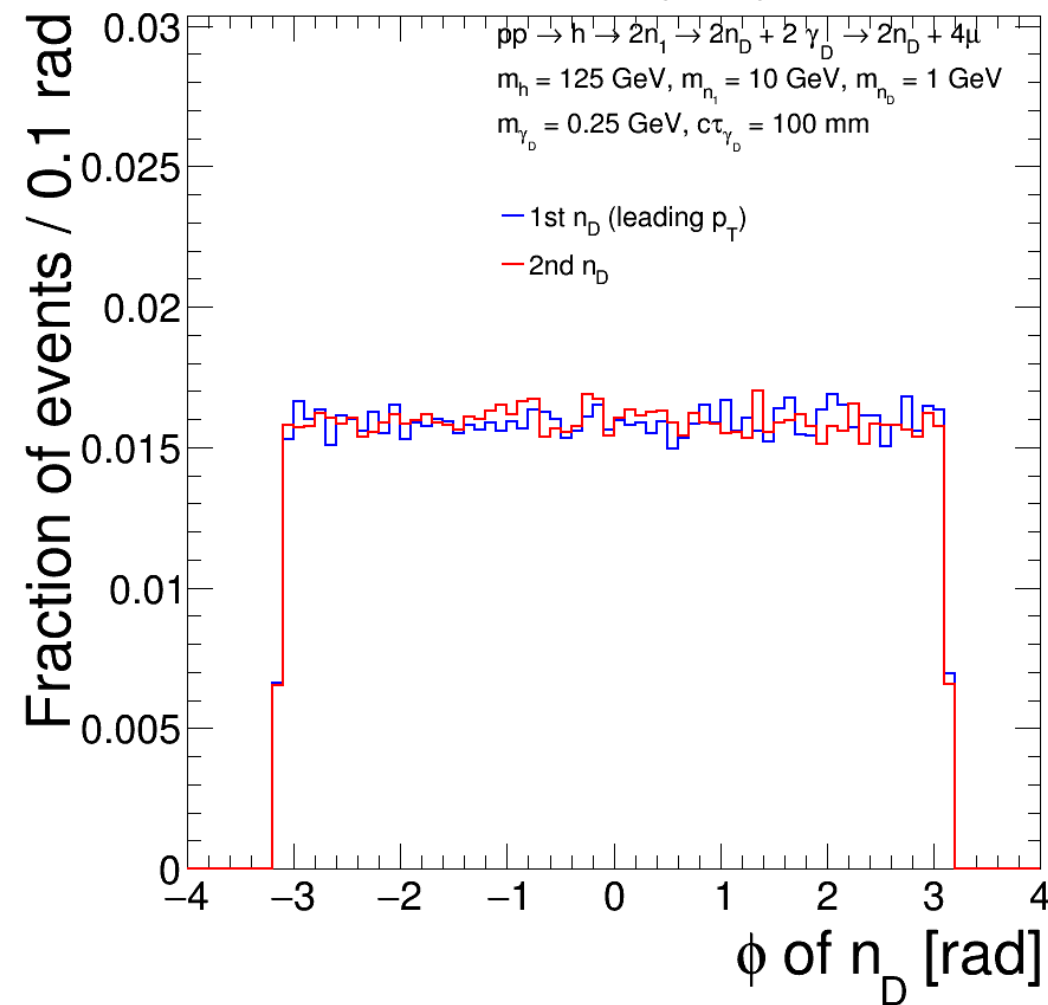
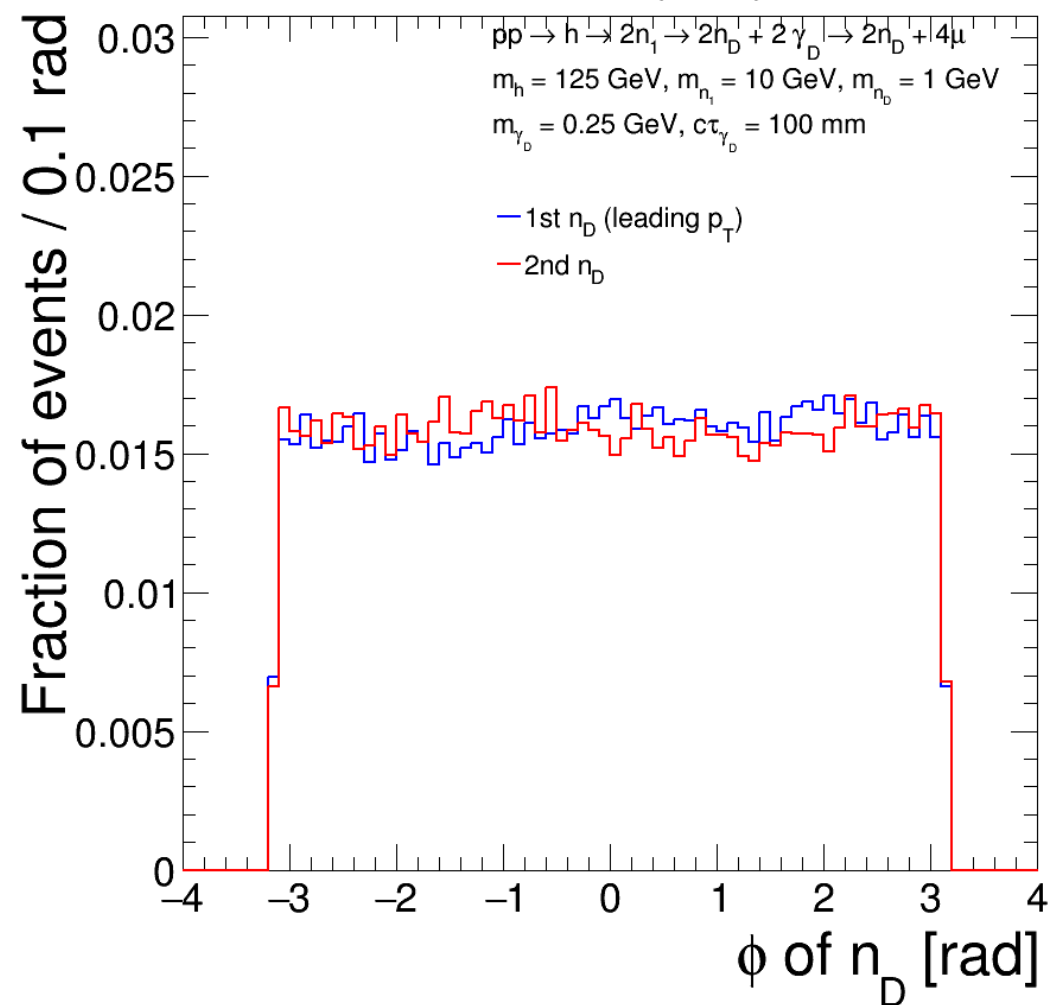
MG4

MG5



CMS Simulation (LHE) 13 TeV

CMS Simulation (LHE) 13 TeV



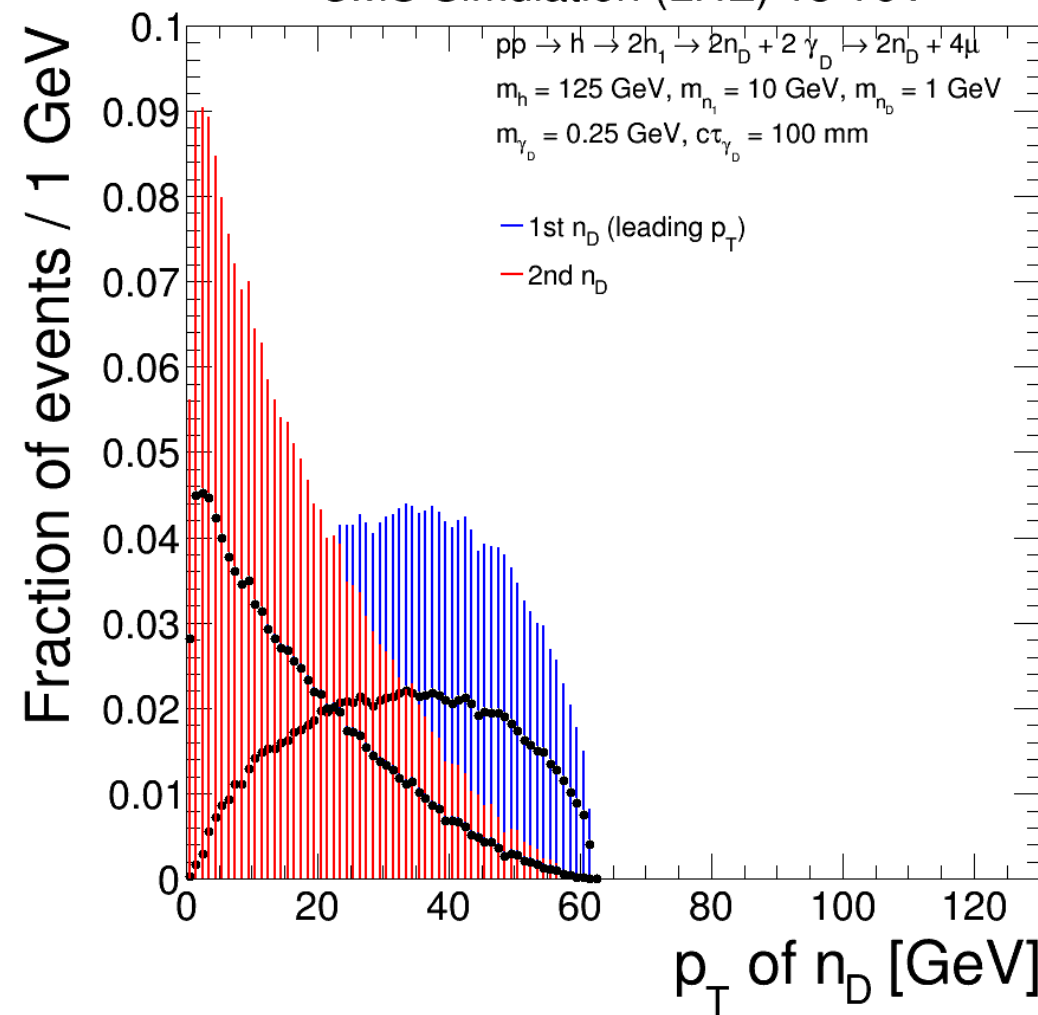
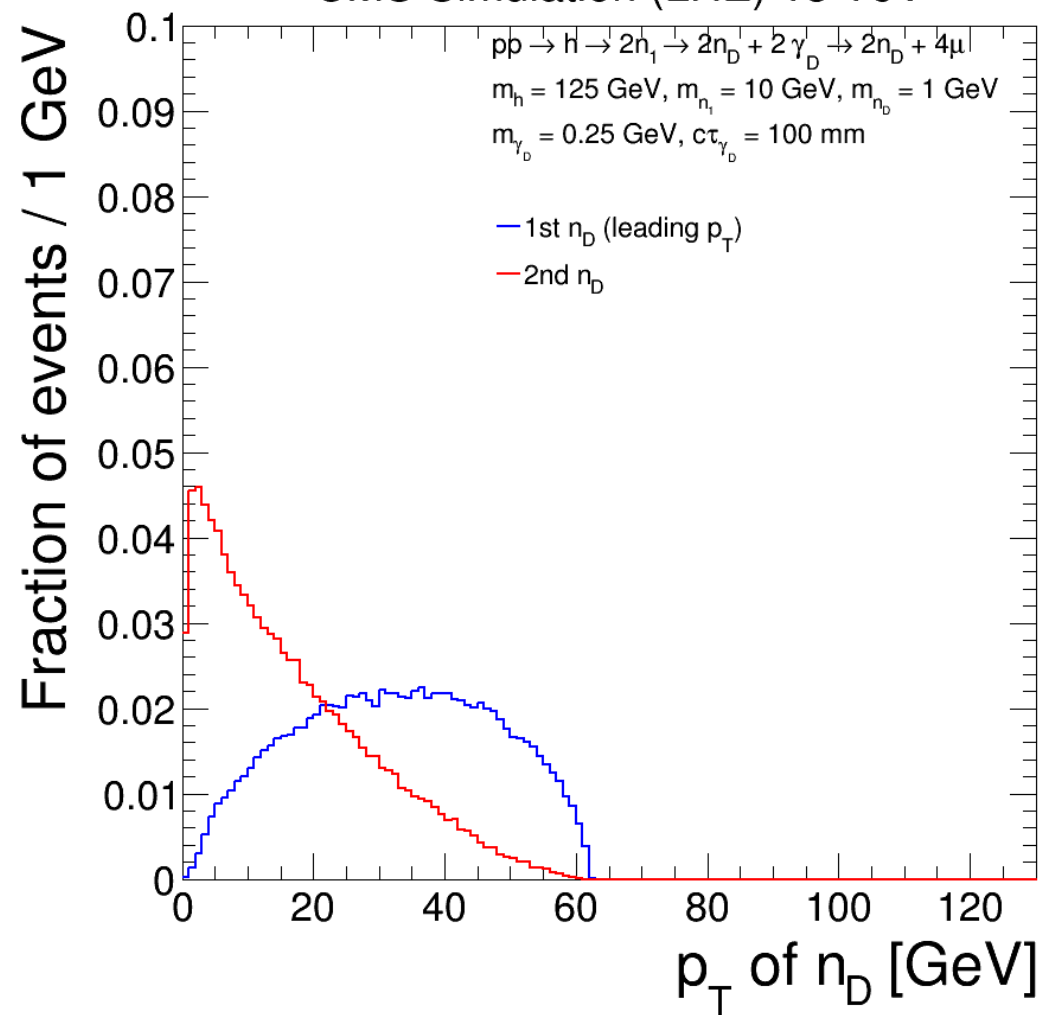
MG4

MG5



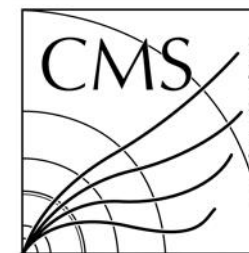
CMS Simulation (LHE) 13 TeV

CMS Simulation (LHE) 13 TeV



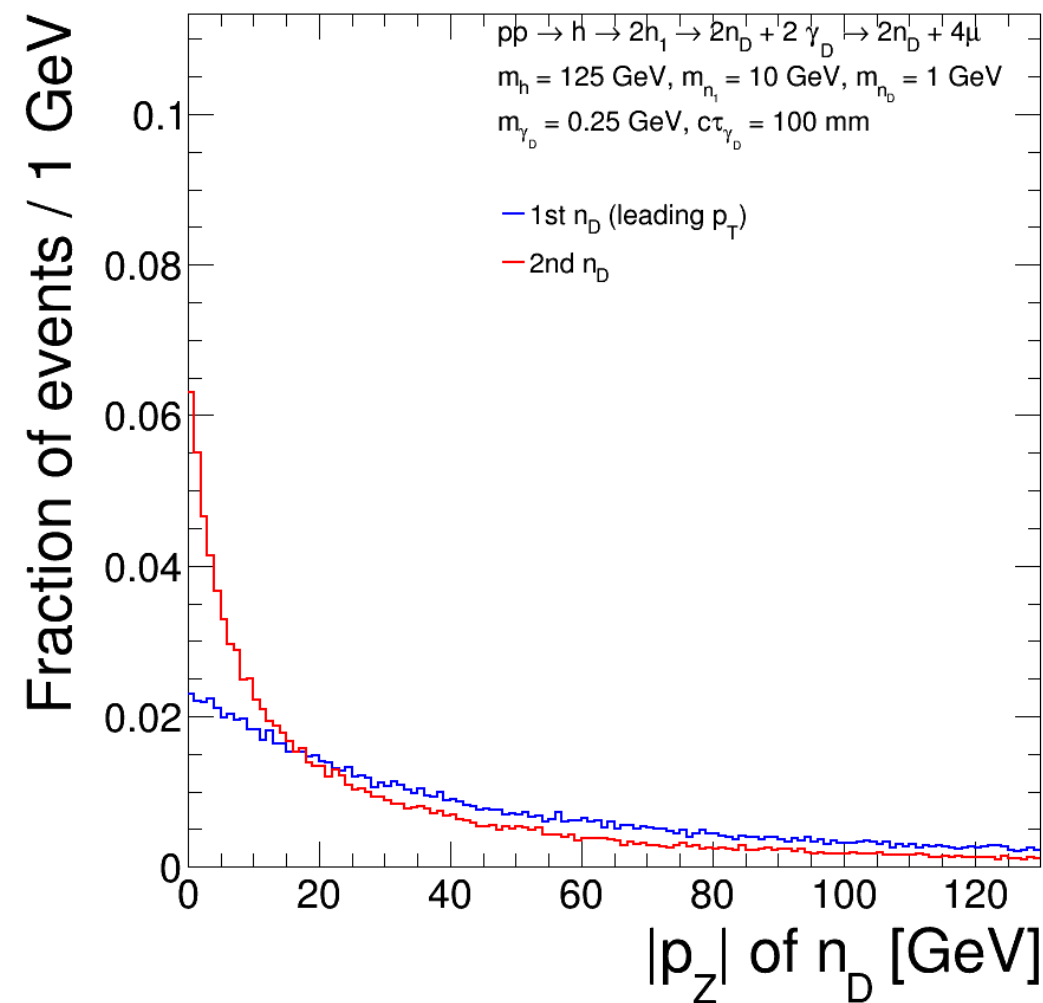
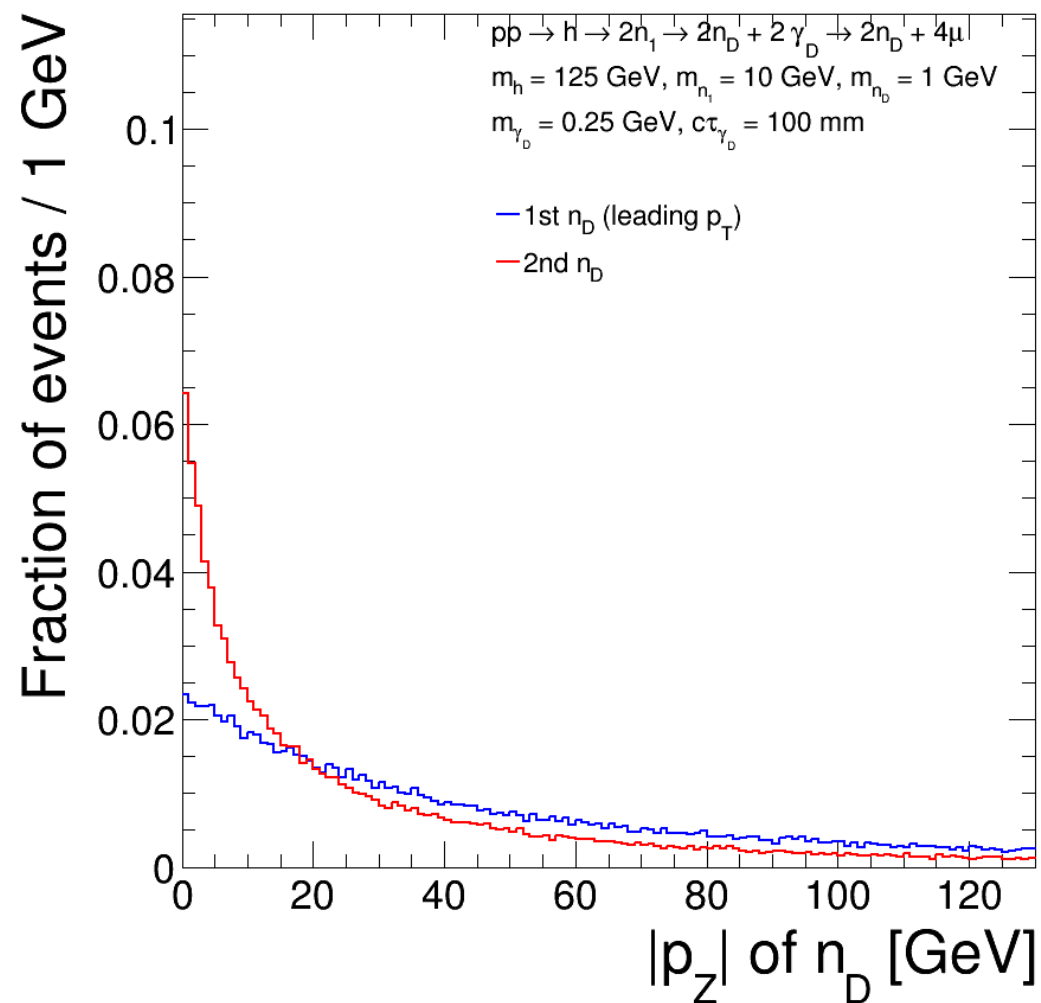
MG4

MG5



CMS Simulation (LHE) 13 TeV

CMS Simulation (LHE) 13 TeV



BACK UP



MadGraph5

- Import dark SUSY model
 - UFO format
 - python files containing coupling, parameters, vertex, etc
 - Output by FeynRules2.0 package
- Implement dark SUSY model in FeynRules
 - Current strategy: MSSM+U1D
 - Base on MSSM, add new particles and vertexes in our dark SUSY benchmark model
 - https://github.com/weishi10141993/DarkSUSY_MC_MG5/tree/master/MSSMDarkSector