Trilepton Analysis: The $WH \rightarrow WWW \rightarrow l\nu l\nu l\nu$ Signal

(CDF Collaboration)

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(Dated: 6 July 2009)

This is a summary of information for my trilepton analysis derived from `ntp_v15`.

Contents

SUMMARY

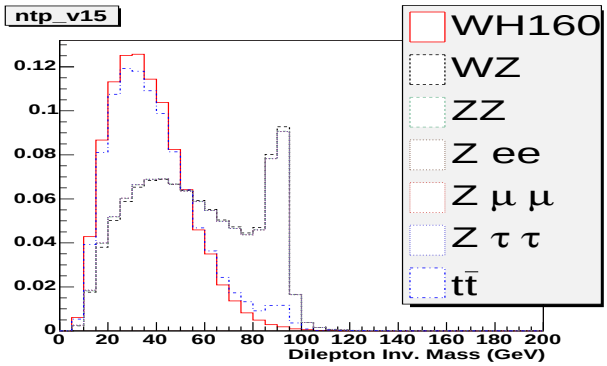


FIG. 1: Dilepton mass

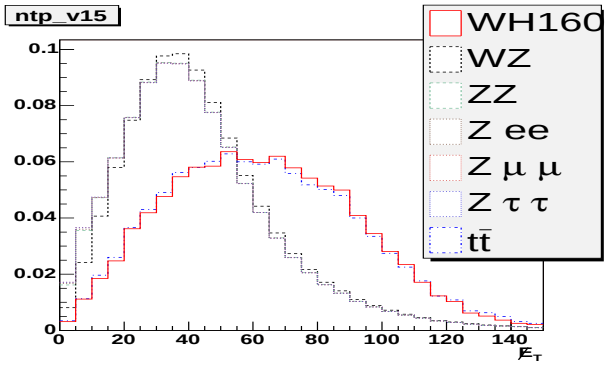


FIG. 2: Missing transverse energy

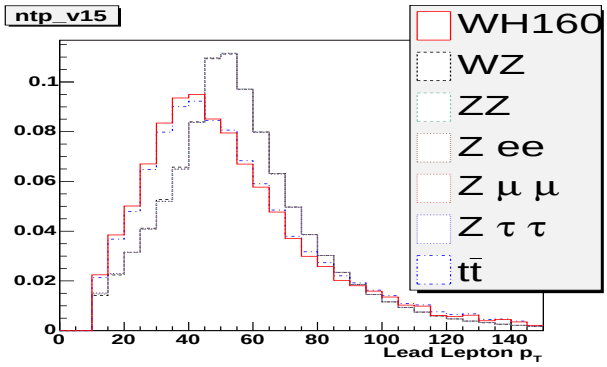


FIG. 3: Lead Lepton p_T

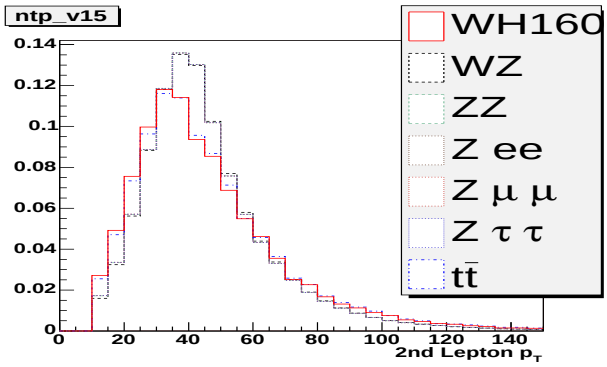


FIG. 4: 2nd Lepton p_T

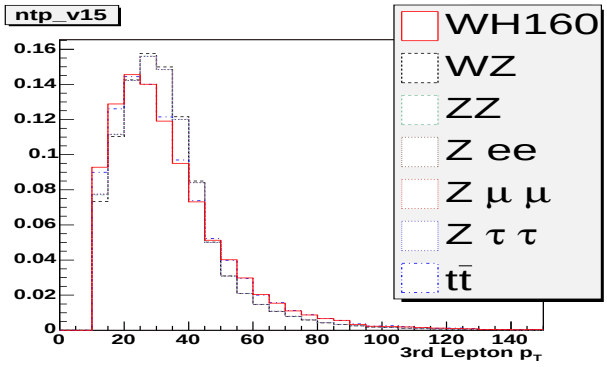


FIG. 5: 3rd Lepton p_T

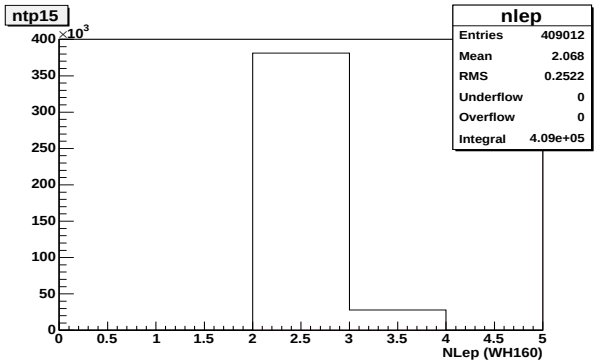


FIG. 6: WH160: Lepton multiplicity

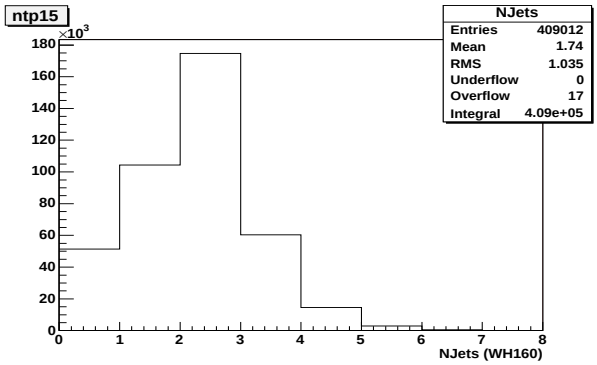


FIG. 7: WH160: Jet multiplicity

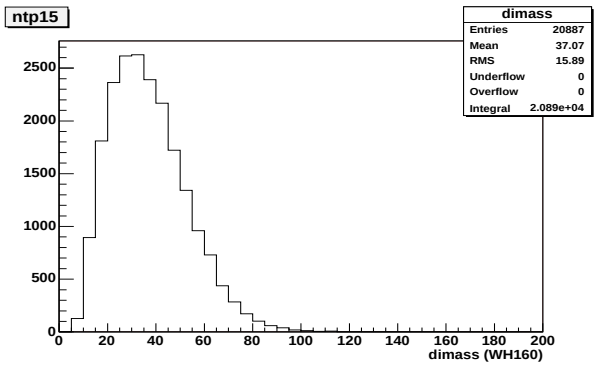
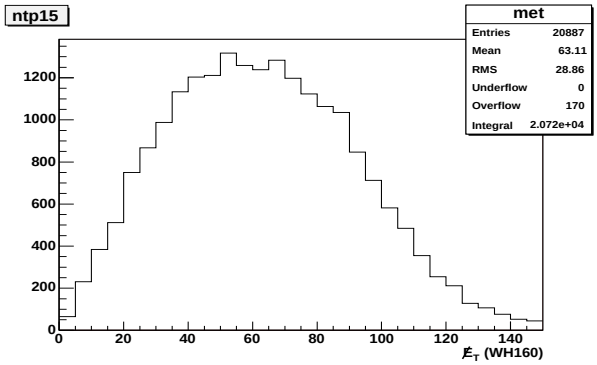


FIG. 8: WH160: Dilepton mass (`NLep == 3, NJet == 0` bin)

SIGNALS

ntp_WH160



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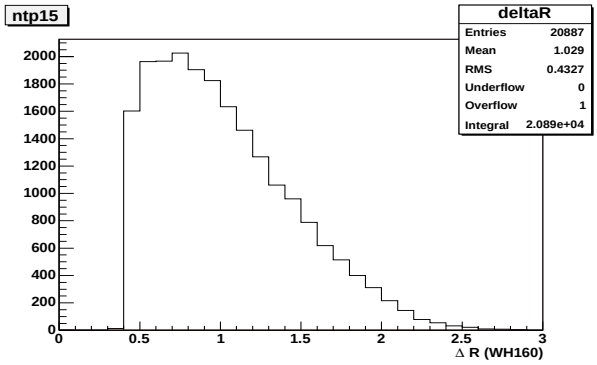

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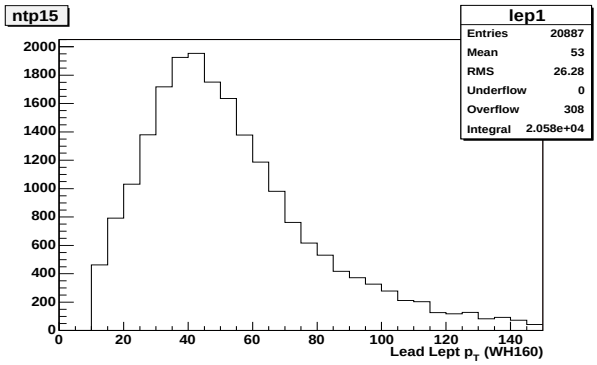

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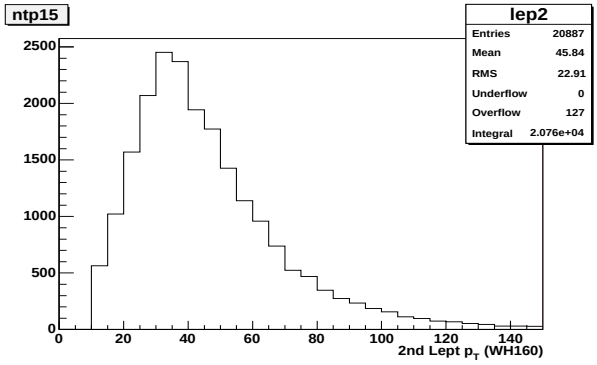
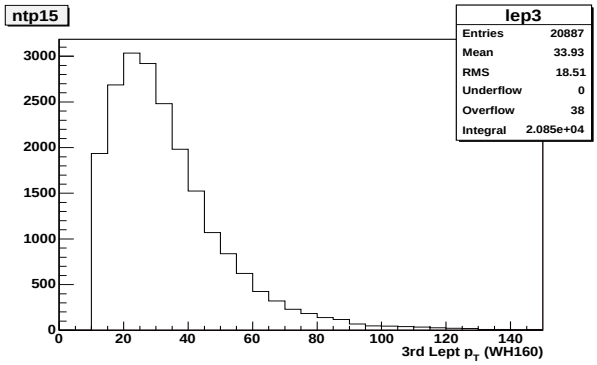


FIG. 12: WH160: 2nd Lepton p_T (`NLep == 3, NJet == 0` bin)



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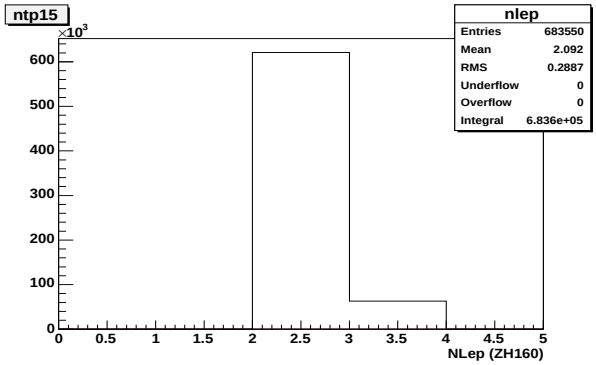
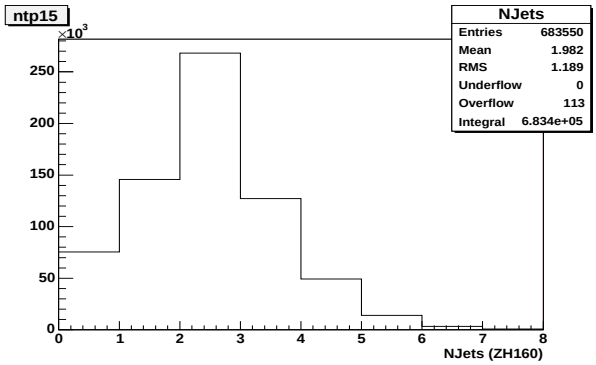


FIG. 14: ZH160: Lepton multiplicity (`NLep == 3, NJet == 0` bin)



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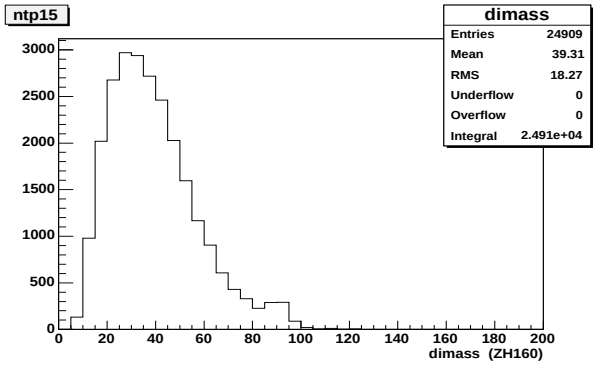
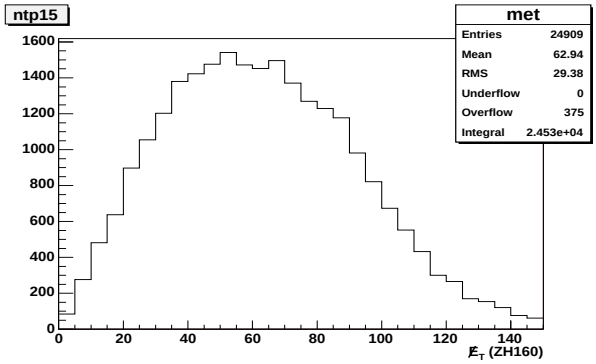


FIG. 16: ZH160: Dilepton mass (`NLep == 3, NJet == 0` bin)

ntp_ZH160



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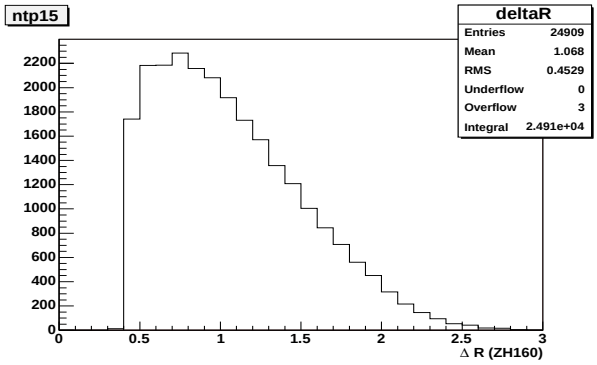

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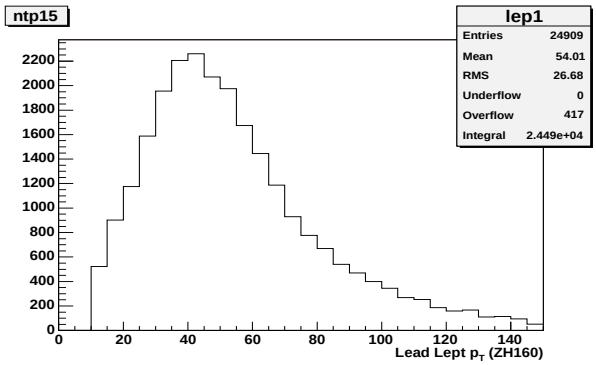

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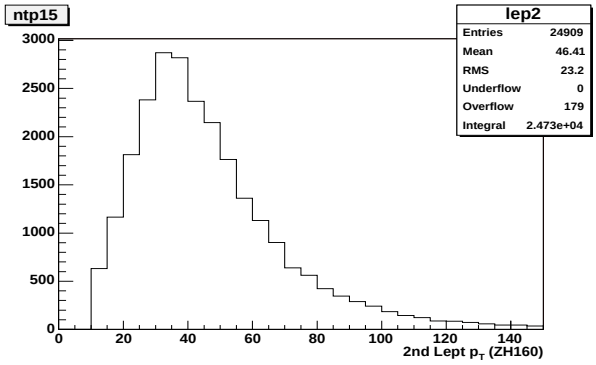

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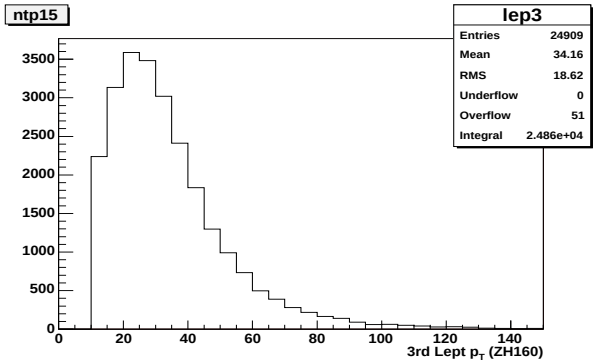


FIG. 21: ZH160: 3rd Lepton p_T (`NLep == 3, NJet == 0` bin)

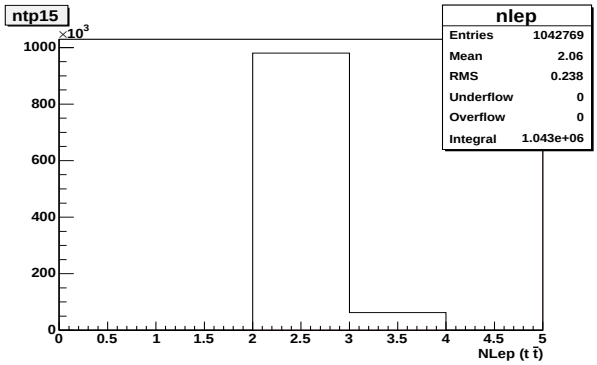
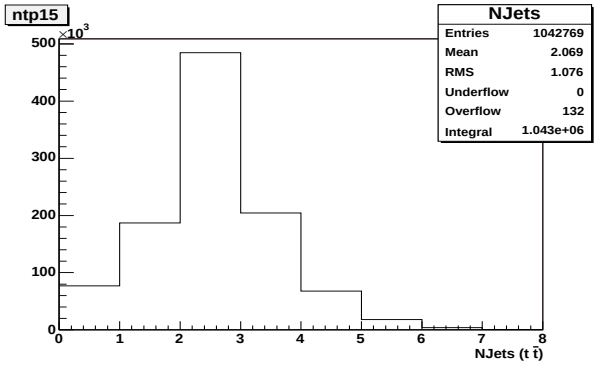


FIG. 22: ttbar: Lepton multiplicity (`NLep == 3, NJet == 0` bin)



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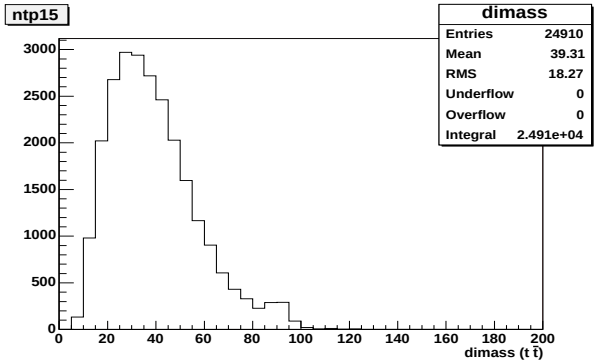

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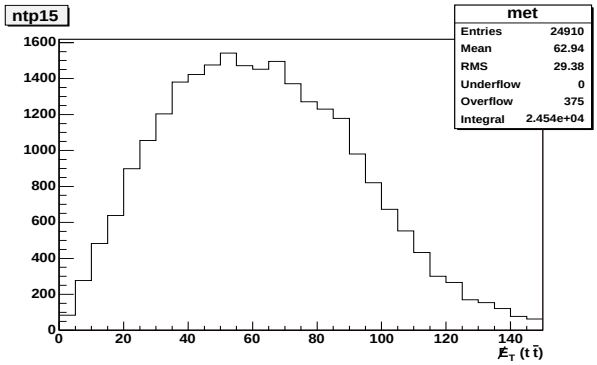
BACKGROUNDS

ntp_ttbar



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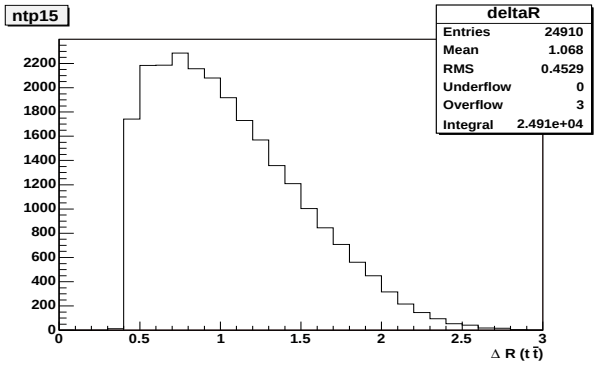

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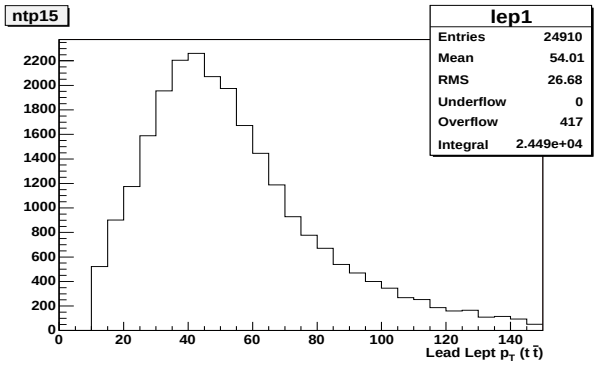

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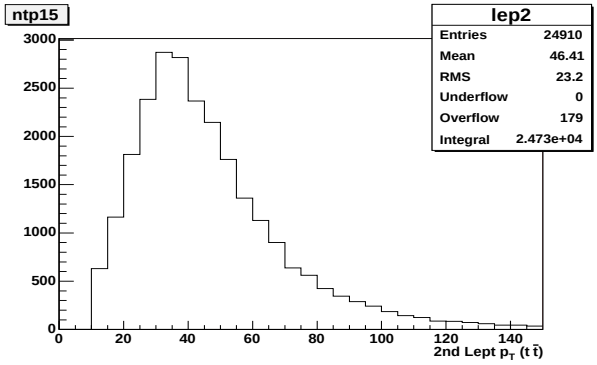

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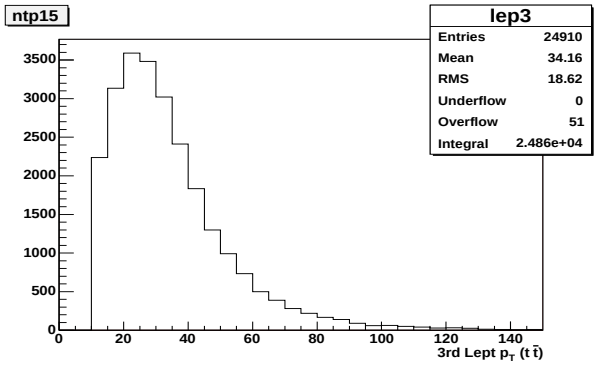
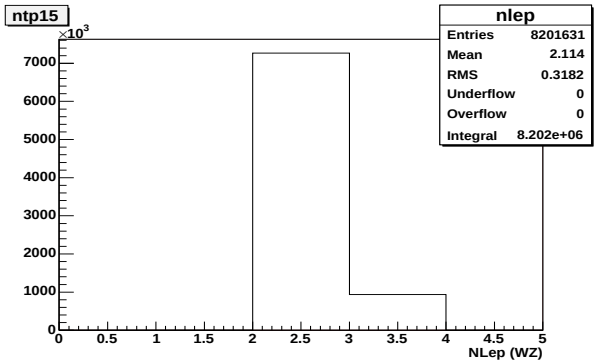


FIG. 29: ttbar: 3rd Lepton p_T (`NLep == 3, NJet == 0` bin)



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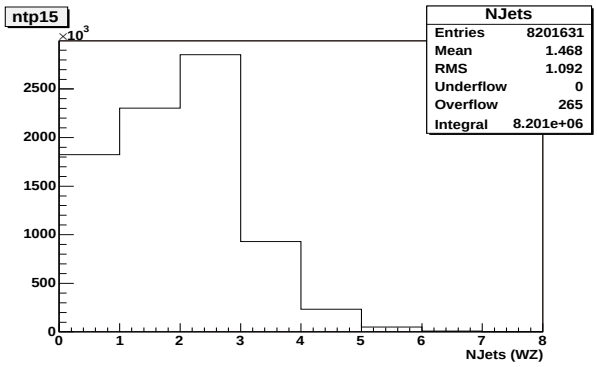

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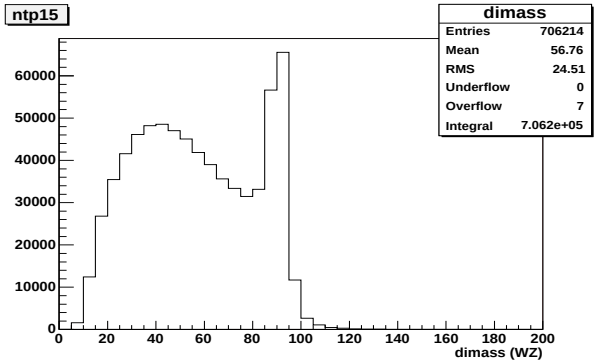

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ntp_WZ

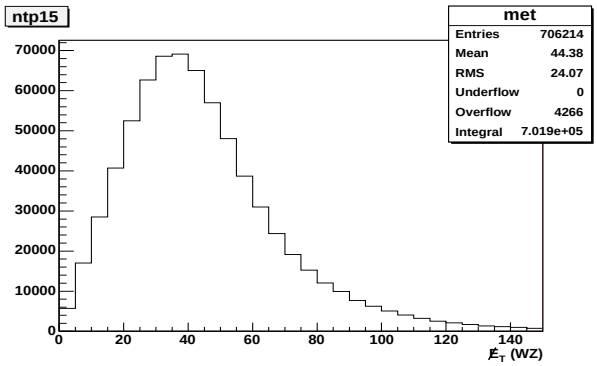
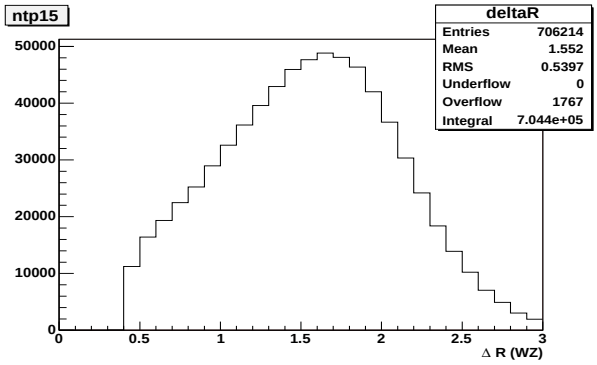


FIG. 33: WZ: Missing transverse energy (`NLep == 3, NJet == 0` bin)



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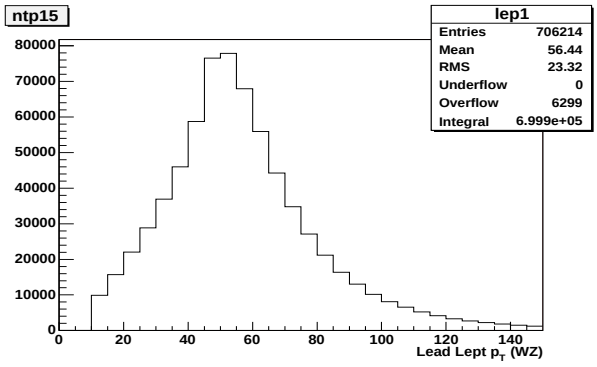

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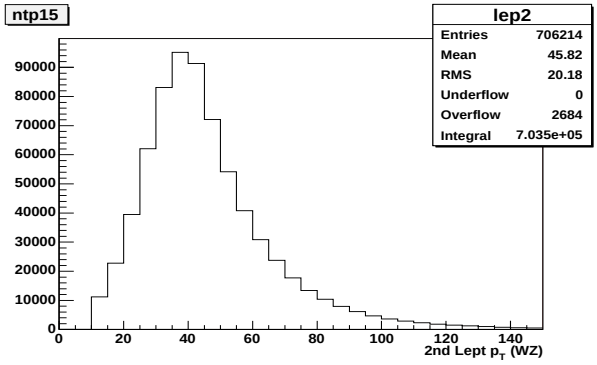
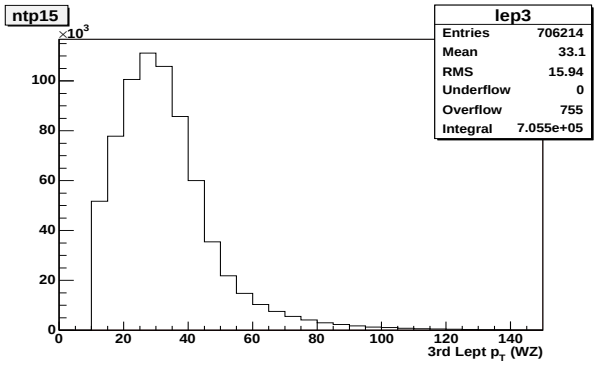


FIG. 36: WZ: 2nd Lepton p_T (`NLep == 3, NJet == 0` bin)



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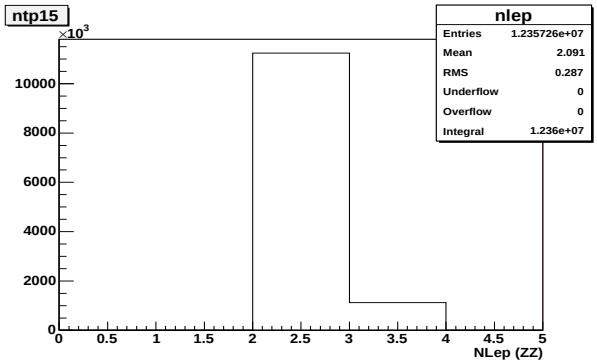

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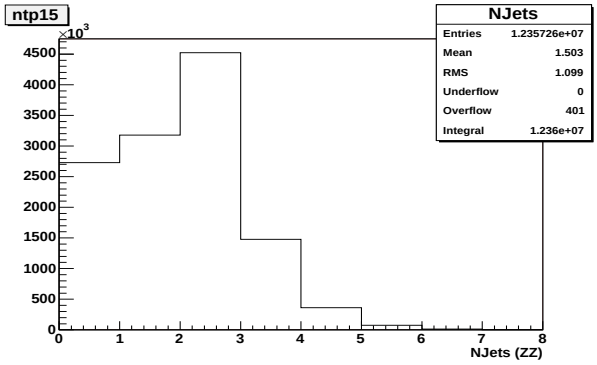

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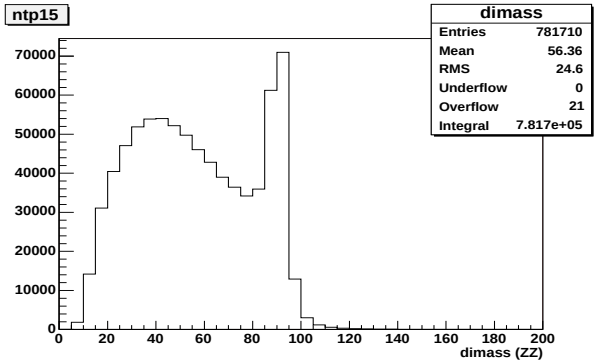

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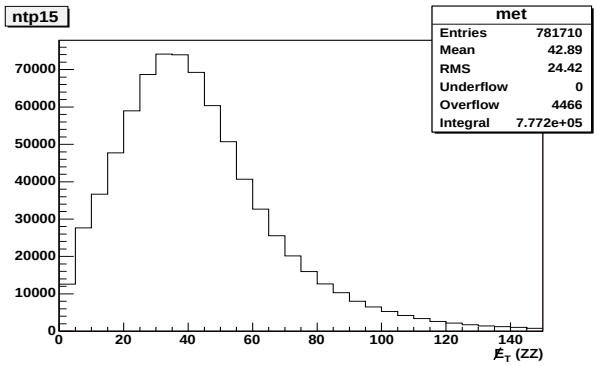
ntp_ZZ



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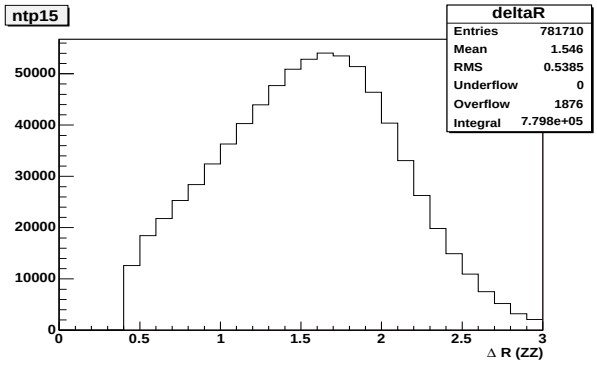

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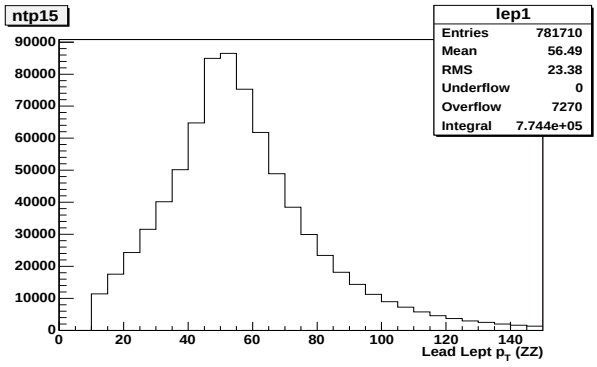

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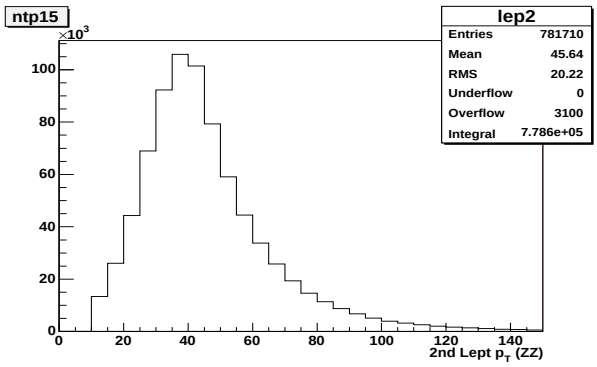


FIG. 44: ZZ: 2nd Lepton p_T (`NLep == 3, NJet == 0` bin)

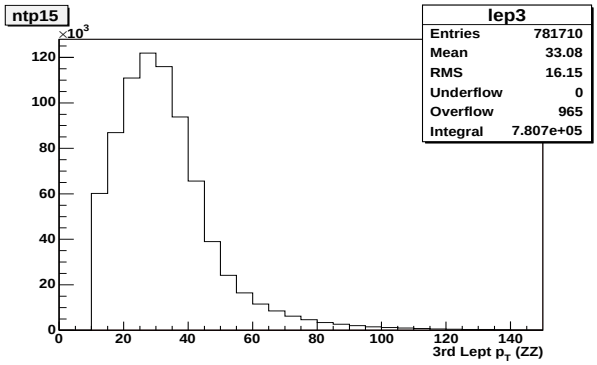
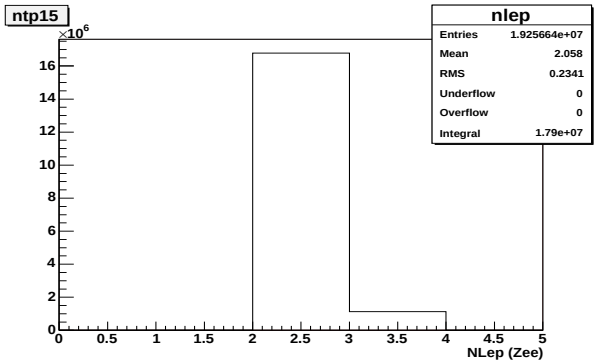


FIG. 45: ZZ: 3rd Lepton p_T (`NLep == 3, NJet == 0` bin)



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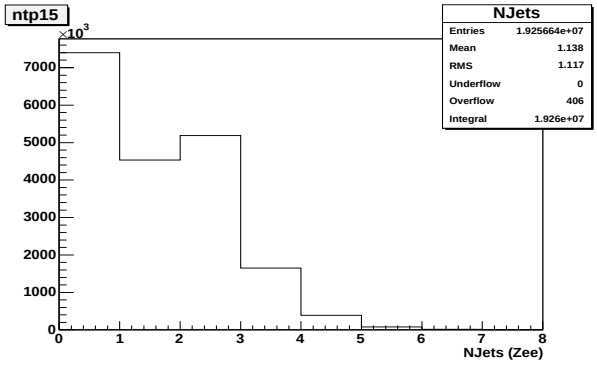

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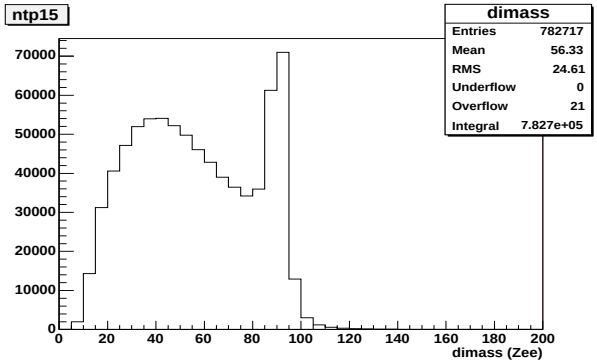


FIG. 48: Zee: Dilepton mass (`NLep == 3, NJet == 0` bin)

ntp_Zee

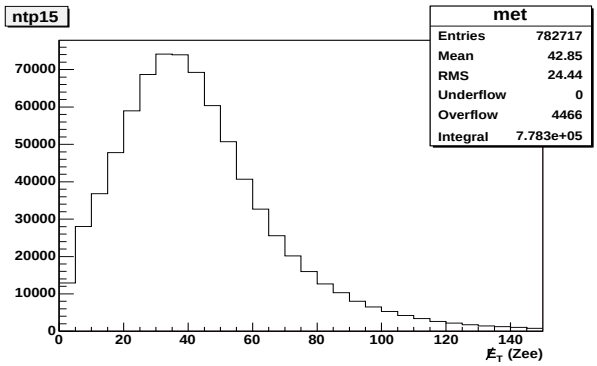
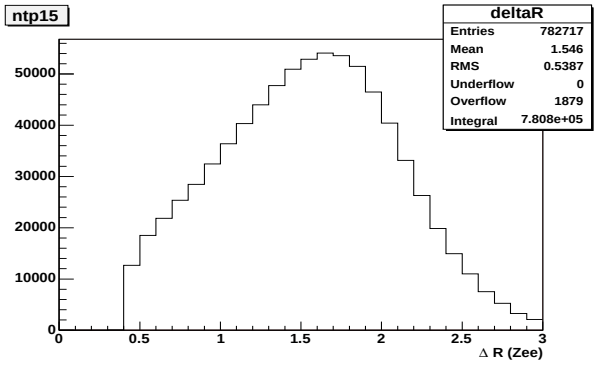


FIG. 49: Zee: Missing transverse energy (`NLep == 3, NJet == 0` bin)



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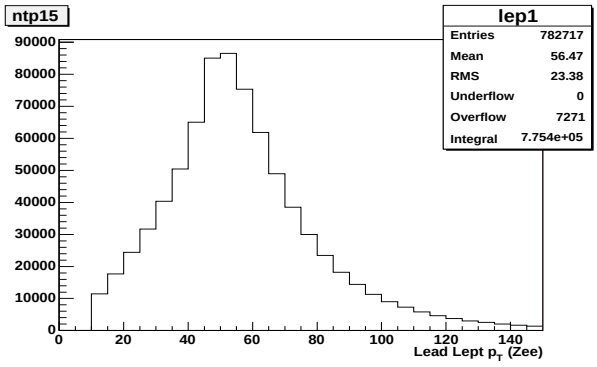

FIG. 51: Zee: Lead Lepton p_T (`NLep == 3, NJet == 0` bin)

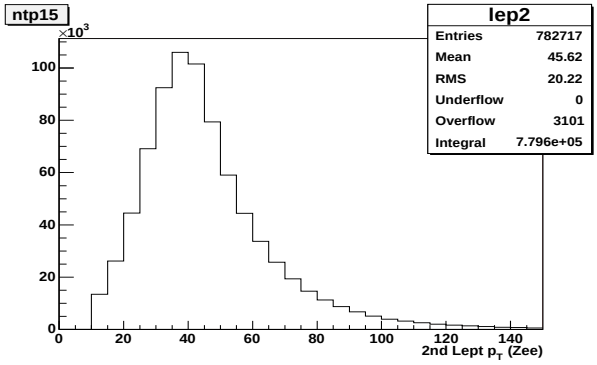

FIG. 52: Zee: 2nd Lepton p_T (`NLep == 3, NJet == 0` bin)

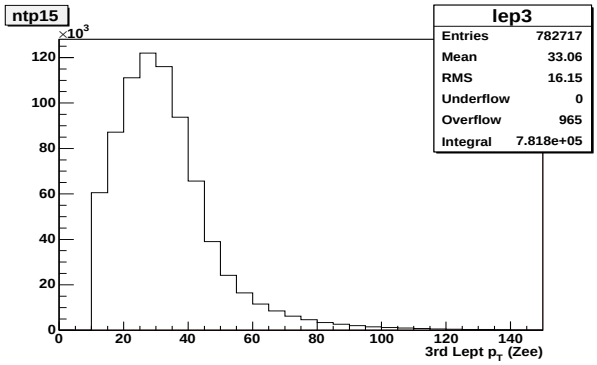

FIG. 53: Zee: 3rd Lepton p_T (`NLep == 3, NJet == 0` bin)

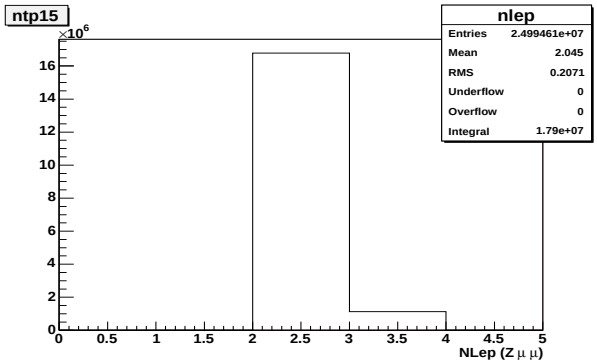

FIG. 54: Zmm: Lepton multiplicity (`NLep == 3, NJet == 0` bin)

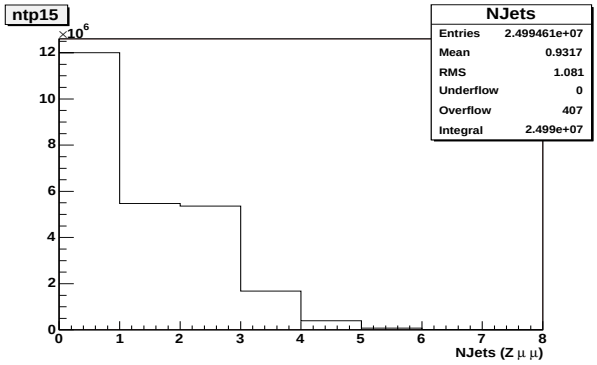

FIG. 55: Zmm: Jet multiplicity (`NLep == 3, NJet == 0` bin)

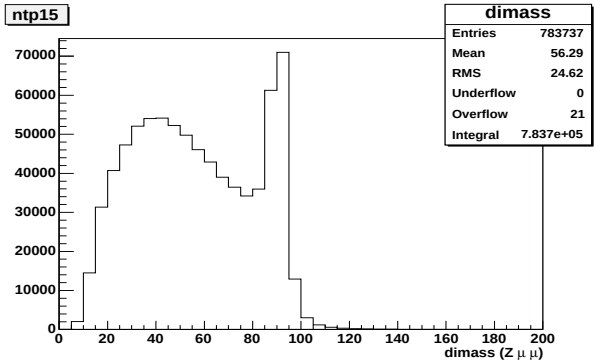

FIG. 56: Zmm: Dilepton mass (`NLep == 3, NJet == 0` bin)

ntp_Zmm

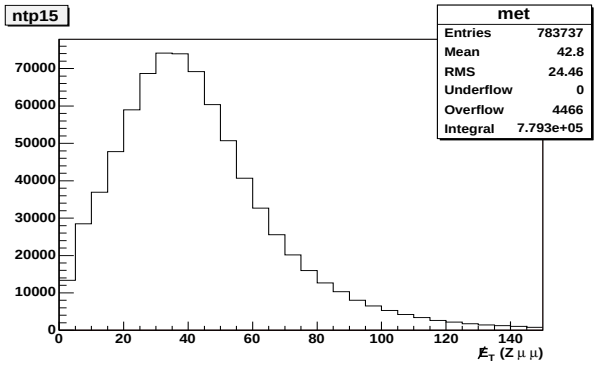

FIG. 57: Zmm: Missing transverse energy (`NLep == 3, NJet == 0` bin)

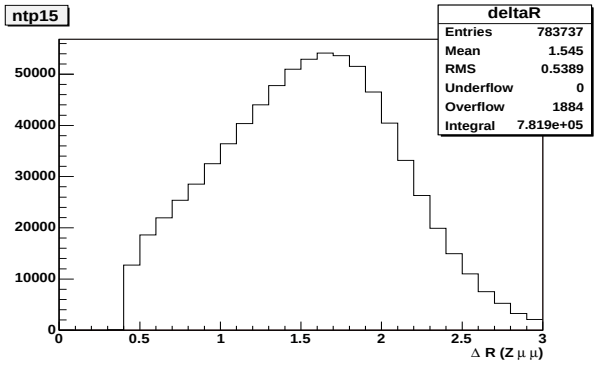

FIG. 58: Zmm: ΔR (`NLep == 3, NJet == 0` bin)

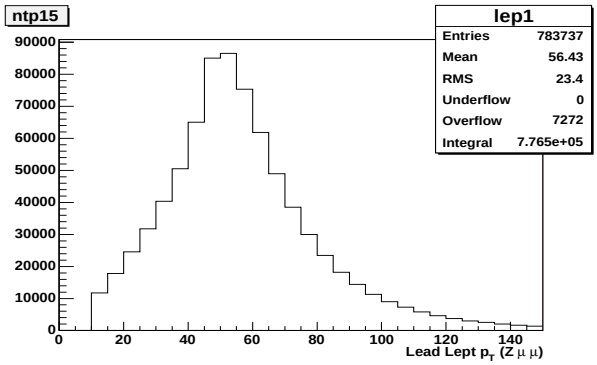

FIG. 59: Zmm: Lead Lepton p_T (`NLep == 3, NJet == 0` bin)

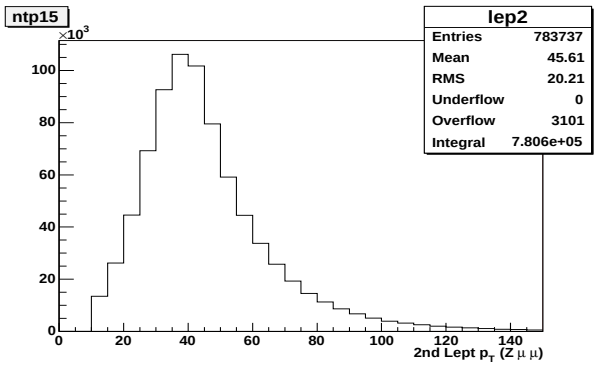

FIG. 60: Zmm: 2nd Lepton p_T (`NLep == 3, NJet == 0` bin)

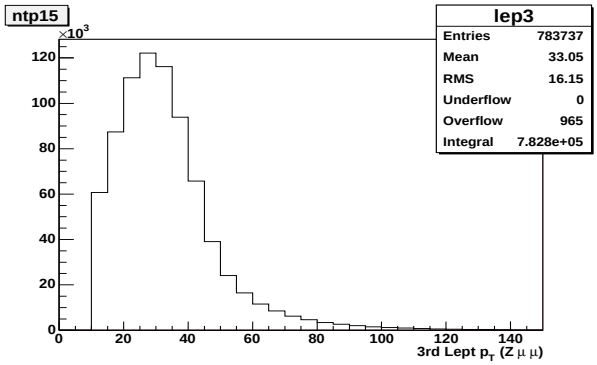

FIG. 61: Zmm: 3rd Lepton p_T (`NLep == 3, NJet == 0` bin)

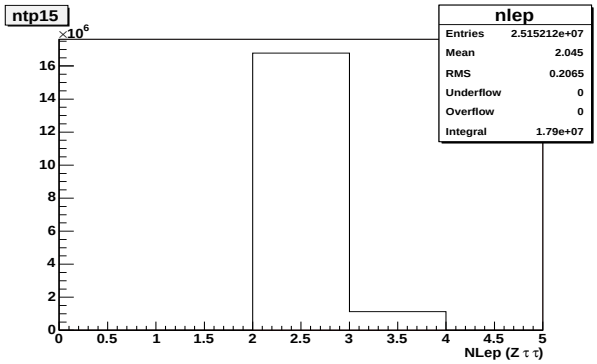

FIG. 62: Ztt: Lepton multiplicity (`NLep == 3, NJet == 0` bin)

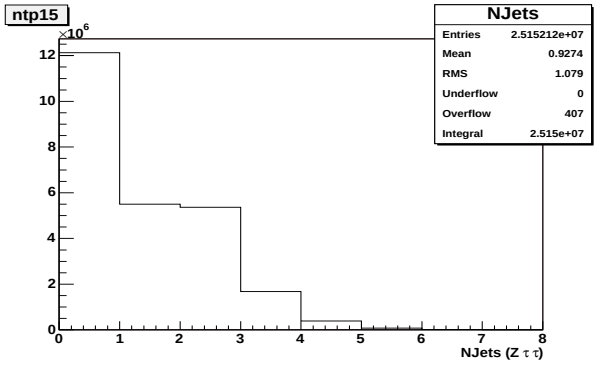

FIG. 63: Ztt: Jet multiplicity (`NLep == 3, NJet == 0` bin)

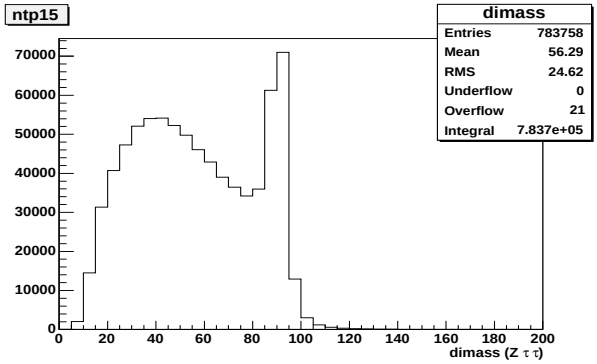

FIG. 64: Ztt: Dilepton mass (`NLep == 3, NJet == 0` bin)

ntp_Ztt

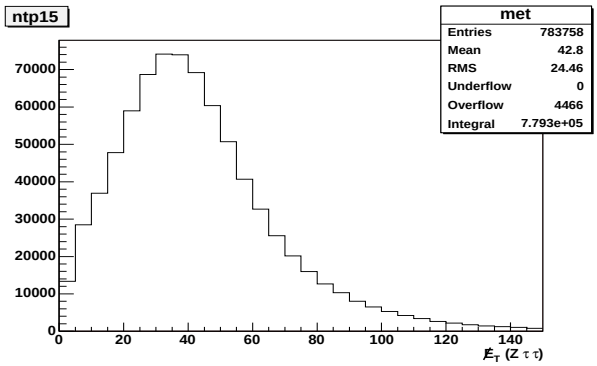

FIG. 65: Ztt: Missing transverse energy (`NLep == 3, NJet == 0` bin)

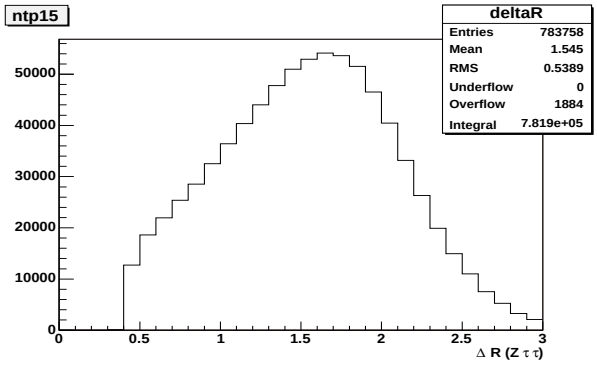

FIG. 66: Ztt: ΔR (`NLep == 3, NJet == 0` bin)

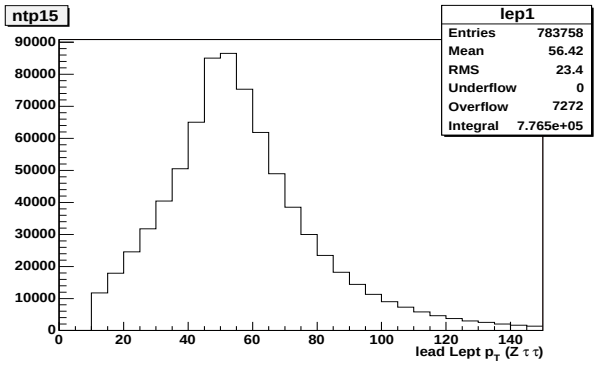

FIG. 67: Ztt: Lead Lepton p_T (`NLep == 3, NJet == 0` bin)

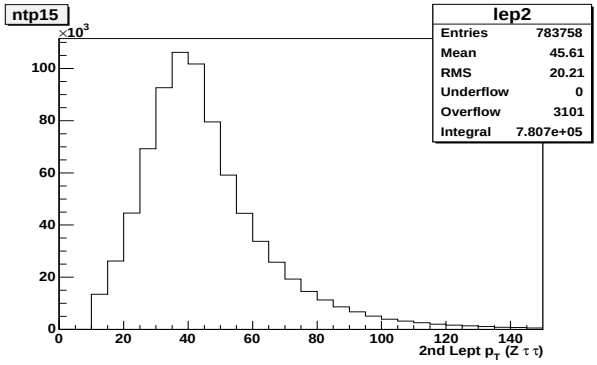

FIG. 68: Ztt: 2nd Lepton p_T (`NLep == 3, NJet == 0` bin)

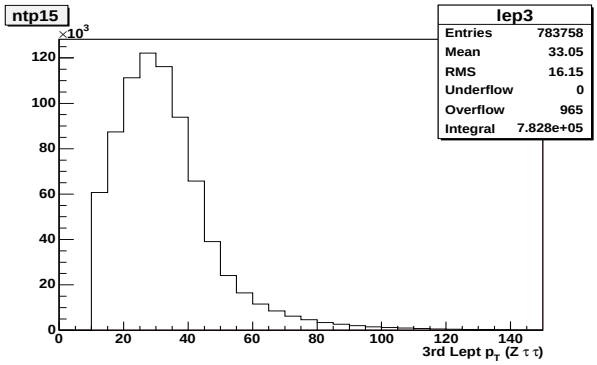

FIG. 69: Ztt: 3rd Lepton p_T (`NLep == 3, NJet == 0` bin)