

9 GeV - phase 1- MBB (Versión 16 tiras)

Plot	Au+Au (MB) 11 GeV	Bi+Bi (MB)
1/N dN/d η vs η (All and primaries)		

Scatter-plot de dE/dx vs Cell Id		
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1/N dN/dEloss vs Eloss [GeV] (Identificadas y en el rango de eta del miniBEBE)		
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Scatter-plot de ToF vs Cell Id		
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1/N dN/d ToF vs ToF [ns] (en el rango de eta del miniBEBE)		
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Plot	Au+Au				Bi+Bi			
	0-20	40-60	80-100	MB	0-20	40-60	80-100	MB
eLoss								
Hits								
ToF								

Simulations	Au+Au 9 GeV				Bi+Bi 9 GeV			
	0-20	40-60	80-100	MB	0-20	40-60	80-100	MB
UrQMD								✓
MPDROOT								✓

MPDROOT simulation details	
Version	April 2020
ICN cluster:	/software/mexnica/NICA/MbbMCord/mpdroot
Configuration:	Mbb strips 60 cm + Magnet + Beam pipe + Cave
Geant	3
UrQMD	3.4

- Que usemos solo blanco y negro y utilizamos símbolos para distinguir las plots.
- Que los rótulos estén lo suficientemente grandes
- Que las unidades sean GeV para energía, y ns para tiempo
- Rótulos como los de Isa

1 000 000 Bi + Bi 9 GeV		
0-20 %	40-60 %	80-100 %
0 - 4.8005	7.3695 - 9.9795	12.9795 - 15.9895

1 000 000 Au + Au 11 GeV		
0-20 %	40-60 %	80-100 %
0 - 4.2395	6.5005 - 8.8195	11.8505 - 15.8005

1 000 000 Bi + Bi 9 GeV (new)		
Class	bi	bf
0-10 %	0	3.2505
10-20%	3.2505	4.8005
20-30	4.8005	6.1195
30-40	6.1195	7.3695
40-50	7.3695	8.6305
50-60	8.6305	9.9795
60-70	9.9795	11.4305
70-80	11.4305	12.9705
80-90	12.9705	14.5295
90-100	14.5295	15.9895

1 000 000 Au + Au 11 GeV		
Class	bi	bf
0-10 %	0	2.8805
10-20%	2.8805	4.2395
20-30	4.2395	5.4005
30-40	5.4005	6.5005
40-50	6.5005	7.6195
50-60	7.6195	8.8195
60-70	8.8195	10.1895
70-80	10.1895	11.8505
80-90	11.8505	13.8295
90-100	13.8295	15.8005

Notes:

More simulations

UrQMD	4 GeV	9 GeV	11 GeV
Bi + Bi			
Au + Au			
p + p			

MPDROOT	4 GeV	9 GeV	11 GeV
Bi + Bi			
Au + Au			
p + p			

UrQMD simulation details (v3.4)	
p+p 4 GeV	/storage/mexnica/isabel/GEN/UrQMD/pp/4GeV
p+p 9 GeV	/storage/mexnica/isabel/GEN/UrQMD/pp/9GeV
p+p 11 GeV	/storage/mexnica/isabel/GEN/UrQMD/pp/11GeV
Au+Au 4 GeV	/storage/mexnica/isabel/GEN/UrQMD/AuAu/4GeV/MB
Au+Au 9 GeV	
Au+Au 11 GeV	storage/mexnica/isabel/GEN/UrQMD/AuAu/11GeV/MB
Bi+Bi 4 GeV	

Bi+Bi 9 GeV	/storage/mexnica/isabel/GEN/UrQMD/BiBi/9GeV/MB
Bi+Bi 11 GeV	/storage/mexnica/isabel/GEN/UrQMD/BiBi/11GeV/MB

PYTHIA 8	
p+p 4 GeV	
p+p 9 GeV	/storage/mexnica/isabel/GEN/PYTHIA8/pp/9GeV
p+p 11 GeV	

LQGSM	Generated by O. Rogachevsky
Au+Au 11 GeV MB	/storage/mexnica/data/AuAuss11_5mb

PHSD	
	/storage/mexnica/data/pp_hsd

MPDROOT simulation details (v april2020) + UrQMD	Mbb + Bmd + MCord + Ffd + Magnet (Phase 1) /software/mexnica/NICA/MbbMCordBmd/mpdroot
p+p 4 GeV	
p+p 9 GeV	
p+p 11 GeV	

Au+Au 4 GeV	/storage/mexnica/evetestmpdroot/MbbMCordBmdFfd/AuAu4GeV
Au+Au 9 GeV	
Au+Au 11 GeV	/storage/mexnica/evetestmpdroot/MbbMCordBmdFfd/AuAu11GeV
Bi+Bi 4 GeV	
Bi+Bi 9 GeV	/storage/mexnica/evetestmpdroot/MbbMCordBmdFfd/BiBi9GeV/50000MagnetOnVertex000
Bi+Bi 11 GeV	/storage/mexnica/evetestmpdroot/MbbMCordBmdFfd/BiBi11GeV/100000MagnetOnVertex000

MPDROOT simulation details (v april2020) + UrQMD	Mbb + Bmd + MCord + Ffd (Phase 1) /software/mexnica/NICA/MbbMCordBmd/mpdroot
Au+Au 4 GeV	/storage/mexnica/evetestmpdroot/MbbMCordBmd/MbbMCordBmdFfd/AuAu4GeV
Au+Au 11 GeV	/storage/mexnica/evetestmpdroot/MbbMCordBmd/MbbMCordBmdFfd/AuAu11GeV
Bi+Bi 9 GeV	/storage/mexnica/evetestmpdroot/MbbMCordBmd/MbbMCordBmdFfd/BiBi9GeV/500000MagnetOnVertex000

MPDROOT simulation details (v april2020) + UrQMD	Phase 1: Mbb and Magnet /software/mexnica/NICA/MbbMCord/mpdroot
Bi+Bi 9 GeV	/storage/mexnica/evetestmpdroot/MbbPhase1/1000000BiBiMB9GeV
Bi+Bi 11 GeV	/storage/mexnica/evetestmpdroot/MbbPhase1/100000BiBiMB11GeV
Au+Au 4 GeV	/storage/mexnica/evetestmpdroot/MbbPhase1/AuAuMB4GeV
Au+Au 9 GeV	
Au+Au 11 GeV	/storage/mexnica/evetestmpdroot/MbbPhase1/500000AuAuMB11GeV
	Phase 1: Mbb (only Mbb + Magnet) /software/mexnica/NICA/MbbMCord/mpdroot
p+p 4 GeV	/storage/mexnica/evetestmpdroot/MbbPhase1/ppMbb/4GeV
p+p 9 GeV	/storage/mexnica/evetestmpdroot/MbbPhase1/ppMbb/9GeV
p+p 11 GeV	/storage/mexnica/evetestmpdroot/MbbPhase1/ppMbb/11GeV

MPDROOT simulation details (v april2020) + UrQMD	Mbb + Bmd + MCord + Ffd (Phase 0) No Magnet /software/mexnica/NICA/MbbMCordBmd/mpdroot
p+p 4 GeV	
p+p 9 GeV	
p+p 11 GeV	
Au+Au 4 GeV	/storage/mexnica/evetestmpdroot/MbbMCordBmdFfdPhase0/AuAu4 GeVMB
Au+Au 9 GeV	
Au+Au 11 GeV	
Bi+Bi 4 GeV	
Bi+Bi 9 GeV	
Bi+Bi 11 GeV	



Geometries

Ffd: ffd_L180cm_v1_0.geo

Bmd: bbc_hex_5cm_NDetScin_v1.root

Mbb: mbb_v0_strips60cm.root

MCord: mcord_bebe1.geo

MPDROOT simulation details (v april2020) + PYTHIA8	Mbb + Bmd + MCord + Ffd (Phase 1) Magnet /software/mexnica/NICA/MbbMCordBmd/mpdroot
p+p 4 GeV	
p+p 9 GeV (100,000)	/storage/mexnica/evetestmpdroot/pythia/MbbPhase1/test
p+p 11 GeV	



MPDROOT simulation details (v april2020) + UrQMD Geometry: mbb_32strips_60cm.root	Mbb (Phase 1) Magnet turn on /software/mexnica/NICA/MbbMCord/mpdroot
Bi+Bi 9 GeV (100,000)	/storage/mexnica/evetestmpdroot/Mbb32stripsPhase1/test100000
Bi+Bi 9 GeV (1,000,000)	/storage/mexnica/evetestmpdroot/Mbb32stripsPhase1/BiBi/9GeV B
p+p 4 GeV	/storage/mexnica/evetestmpdroot/Mbb32stripsPhase1/pp/4GeV
p+p 9 GeV	/storage/mexnica/evetestmpdroot/Mbb32stripsPhase1/pp/9GeV
p+p 11 GeV 	/storage/mexnica/evetestmpdroot/Mbb32stripsPhase1/pp/11GeV

MPDROOT simulation details (v June 2019) + LAQGSM	BeBe (Phase 1) Magnet turn on /software/mexnica/NICA/mpdrootdev/mpdroot
Au+Au 11 GeV 	

MPDROOT simulation details (v april2020) + PYTHIA8 Mbb32strips	Mbb (Phase 1) Magnet /software/mexnica/NICA/MbbMCordBmd/mpdroot
p+p 4 GeV	
p+p 9 GeV 	/storage/mexnica/evetestmpdroot/pythia/Mbb32stripsPhase1/pp/9G eV
p+p 11 GeV	

Mbb analysis of <Hits, eLoss, Tof> and others for CDR with all the mbbPoints:

16 strip geometry	
p+p	4 GeV /storage/mexnica/pedroanietom/phase1/pp/4GeV
	9 GeV /storage/mexnica/pedroanietom/phase1/pp/9GeV
	11 GeV /storage/mexnica/pedroanietom/phase1/pp/11GeV
Au+Au	11 GeV /storage/mexnica/pedroanietom/phase1/AuAu11GeV
Bi+Bi	9 GeV /storage/mexnica/pedroanietom/phase1/BiBi/9GeV
32 strip geometry	
p+p	4 GeV /storage/mexnica/pedroanietom/mbb32tiras/pp/4GeV
	9 GeV /storage/mexnica/pedroanietom/mbb32tiras/pp/9GeV
	11 GeV /storage/mexnica/pedroanietom/mbb32tiras/pp/11GeV
Bi+Bi	9 GeV /storage/mexnica/pedroanietom/mbb32tiras/BiBi/9GeV

BeBe analysis of <Hits, eLoss, Tof> ad others for CDR with all, primary, secondary BmdPoints:

/software/mexnica/NICA/mpdrootdev/mpdroot

16 strip geometry	
p+p	4 GeV /storage/mexnica/pedroanietom/phase1/bb/pp/4GeV
	9 GeV /storage/mexnica/pedroanietom/phase1/bb/pp/9GeV
	11 GeV /storage/mexnica/pedroanietom/phase1/bb/pp/11GeV
Au+Au	11 GeV /storage/mexnica/pedroanietom/phase1/bb/AuAu/11GeV
Bi+Bi	9 GeV /storage/mexnica/pedroanietom/phase1/bb/BiBi/9GeV

Simulation and reconstruction files:

MPDROOT simulation and reconstruction details (june 2020)	TPC+TOF+EMCAL+ZDC simulated: mctestf14\$i.root reconstructed: rectestf14\$i.root
Bi+Bi 11 GeV, $b \rightarrow \text{MB}$	<i>/storage/mexnica/isabel/TPC-rec/BiBi/11GeV/MB</i>
Bi+Bi 11 GeV, $b \rightarrow (0,4)\text{fm}$	<i>/storage/mexnica/isabel/TPC-rec/BiBi/11GeV/b4</i>
Bi+Bi 11 GeV, $b \rightarrow (6,8)\text{fm}$	<i>/storage/mexnica/isabel/TPC-rec/BiBi/11GeV/b6.8</i>