

```

Define      Da = (D+ - D-)/2
            Dm = (D+ + D-)/2

(1/P+)corr(a) = ((1/P+)meas + D+) = ((1/P+)meas + Dm + Da)
              = {(1/P+)meas + Dm} + { Da} = (1/P+)meas  {(1 + Dm/(1/P+)meas)} + { Da}

(1/P-)corr(a) = ((1/P-)meas + D-) = ((1/P-)meas + Dm - Da)
              = {(1/P-)meas + Dm} - { Da}*(1+Ds) } = (1/P-)meas  {(1 + Dm/(1/P-)meas)} - { Da}

Dm for data and MC => dcor_bf[8][8] and mcor_bf[8][8] (multiplicative)
Da for data and MC => dcor_ma[8][8] and mcor_ma[8][8] (additive)
<(1/p+) mean> for data and MC (it is <1/pT>) after <1/pT> correction=> dpavg[8][8] and mpavg[8][8]
<(1/p-) mean> for data and MC (it is <1/pT>) after <1/pT> correction => dmavg[8][8] and mmavg[8][8]

correction factors are saved as a function of [phi][eta];

//Dm for data
const float rochcor::dcor_bf[8]
[8]={{-0.000158627,-0.000041007,0.000043624,-0.000091272,-0.000034110,0.000006713,-0.000080008,-0.000194434},
      {0.000241518,0.000072115,0.000027533,0.000007656,0.000034291,0.000041096,-0.000074288,0.000195368},
      {0.000017460,-0.000041965,0.000000277,0.000036683,0.000066782,-0.000026871,-0.000068934,0.000010328},
      {-0.000207442,-0.000049851,0.000019875,-0.000055971,-0.000046222,-0.000029831,-0.000007562,0.000018155},
      {-0.000036763,-0.000005644,0.000047856,0.000032626,0.000013827,-0.000072283,-0.000094405,0.000050860},
      {-0.000094939,-0.000131366,-0.000075372,0.000032292,0.000019199,-0.000045545,-0.000086305,0.000063140},
      {-0.000130517,-0.000072986,-0.000046152,0.000015208,0.000009953,-0.000005145,-0.000122427,-0.000147232},
      {-0.000102185,-0.000138366,0.000028924,0.000056669,0.000004343,-0.000016539,-0.000081825,-0.000034028}};

//Da for data
const float rochcor:: dcor_ma[8]
[8]={{-0.000805474,0.000095680,-0.000121130,-0.000149714,-0.000015070,-0.000114498,0.000410759,0.001487961},
      {0.001331066,0.000255781,-0.000055927,-0.000137388,-0.000104651,-0.000027939,0.000186082,0.000423447},
      {0.000348590,0.000179236,0.000066083,0.000110454,0.000052145,0.000093023,0.000161062,0.000340619},
      {-0.001415117,-0.000394094,0.000083846,0.000147743,0.000160102,0.000123075,0.000004976,0.000207911},
      {-0.002134604,-0.000408886,0.000083859,0.000007377,0.000108943,0.000275153,0.000146330,-0.000460230},
      {-0.001523571,-0.000437942,-0.000053675,-0.000025232,-0.000030116,0.000001054,0.000022751,-0.000233307},
      {0.000050689,-0.000169297,-0.000014999,-0.000054801,-0.000054433,-0.000114541,-0.000080054,0.001299430},
      {0.000111760,-0.000062912,-0.000073251,-0.000084647,-0.000166647,-0.000204877,0.000075218,0.001616720}};

//Dm for MC
const float rochcor::mcor_bf[8]
[8]={{-0.000081183,-0.000032454,-0.000005871,0.000007079,0.000001851,-0.000004238,-0.000056003,-0.000069144},
      {0.000044702,-0.000038374,-0.000006697,-0.000003170,-0.000004404,-0.000009617,-0.000029945,-0.000050143},
      {-0.000035333,-0.000038739,-0.000004194,-0.000006795,-0.000004931,-0.000015930,-0.000042579,-0.000079745},
      {-0.000061599,-0.000025799,-0.000005719,-0.000002640,-0.000000929,-0.000005627,-0.000025918,-0.000074682},
      {-0.000058763,-0.000011336,0.000004742,0.000005024,0.000006627,0.000001016,-0.000028923,-0.000062475},
      {-0.000016707,-0.000019082,0.000002928,0.000009460,0.000013846,-0.000002118,-0.000024903,-0.000055974},
      {-0.000086730,-0.000034314,-0.000003279,0.000011301,0.000009881,0.000004204,-0.000027995,-0.000038818},
      {-0.000081023,-0.000036121,-0.000003035,0.000005324,0.000006723,0.000005482,-0.000017715,-0.000047703}};

//Da for MC
const float rochcor:: mcor_ma[8]
[8]={{-0.000970838,0.000139735,-0.000155523,-0.000165159,-0.000167829,-0.000201043,0.000033471,0.000144333},
      {0.001070522,-0.000007067,-0.000115133,-0.000109028,-0.000096448,-0.000054779,0.000214628,0.000761522},
      {0.000524460,-0.000038304,0.000020823,0.000019881,0.000023338,0.000063761,0.000077257,0.000025121},
      {0.000705021,0.0000404796,0.000183250,0.000143252,0.000135090,0.000150297,0.000305635,0.000304913},
      {0.000851140,0.000517764,0.000200686,0.000167664,0.000156614,0.000165996,0.000341491,0.000956935},
      {-0.001249572,-0.000162622,0.000102779,0.000097324,0.000102674,0.000069528,0.000149003,0.000803922},
      {-0.001756149,-0.000317027,-0.000025581,-0.000016768,-0.000025672,-0.000045368,-0.000138805,-0.000195686},
      {0.000399741,0.000114320,-0.000130493,-0.000119224,-0.000126619,-0.000154748,-0.000785540,-0.002172797}};

//Dm error for data
const float rochcor::dcor_bfer[8]
[8]={{7.37473e-05,3.75889e-05,3.20022e-05,2.9911e-05,3.01223e-05,3.22157e-05,3.82172e-05,7.03758e-05},
      {6.75187e-05,3.74405e-05,3.19017e-05,2.9935e-05,2.99122e-05,3.22002e-05,3.74623e-05,6.74052e-05},
      {6.99395e-05,3.84822e-05,3.2085e-05,2.96944e-05,2.97413e-05,3.18173e-05,3.75743e-05,6.78304e-05},
      {6.84729e-05,3.78376e-05,3.16608e-05,3.02723e-05,2.99409e-05,3.20239e-05,3.71136e-05,6.75503e-05},
      {6.95875e-05,3.77259e-05,3.22479e-05,2.96892e-05,2.98704e-05,3.22171e-05,3.8213e-05,7.30092e-05},
      {6.6844e-05,3.71637e-05,3.15039e-05,3.06548e-05,3.024e-05,3.17404e-05,3.70623e-05,6.76387e-05},
      {7.00723e-05,3.78952e-05,3.17033e-05,3.00575e-05,3.03775e-05,3.17243e-05,3.72027e-05,6.85466e-05},
      {6.89302e-05,3.8021e-05,3.20179e-05,2.98126e-05,2.99747e-05,3.17361e-05,3.7777e-05,6.74314e-05}};

//Da error for data
const float rochcor::dcor_maer[8]
[8]={{7.37473e-05,3.75889e-05,3.20022e-05,2.9911e-05,3.01223e-05,3.22157e-05,3.82172e-05,7.03758e-05},
      {6.75187e-05,3.74405e-05,3.19017e-05,2.9935e-05,2.99122e-05,3.22002e-05,3.74623e-05,6.74052e-05},
      {6.99395e-05,3.84822e-05,3.2085e-05,2.96944e-05,2.97413e-05,3.18173e-05,3.75743e-05,6.78304e-05},
      {6.84729e-05,3.78376e-05,3.16608e-05,3.02723e-05,2.99409e-05,3.20239e-05,3.71136e-05,6.75503e-05},
      {6.95875e-05,3.77259e-05,3.22479e-05,2.96892e-05,2.98704e-05,3.22171e-05,3.8213e-05,7.30092e-05},
      {6.6844e-05,3.71637e-05,3.15039e-05,3.06548e-05,3.024e-05,3.17404e-05,3.70623e-05,6.76387e-05},
      {7.00723e-05,3.78952e-05,3.17033e-05,3.00575e-05,3.03775e-05,3.17243e-05,3.72027e-05,6.85466e-05},
      {6.89302e-05,3.8021e-05,3.20179e-05,2.98126e-05,2.99747e-05,3.17361e-05,3.7777e-05,6.74314e-05}};

//Dm error for MC
const float rochcor::mcor_bfer[8]
[8]={{4.14432e-05,2.20988e-05,1.872e-05,1.71647e-05,1.73018e-05,1.90136e-05,2.27066e-05,4.05287e-05},
      {3.95907e-05,2.21115e-05,1.8984e-05,1.73846e-05,1.73801e-05,1.8959e-05,2.23286e-05,3.94786e-05},
      {3.97194e-05,2.22952e-05,1.89242e-05,1.73341e-05,1.72628e-05,1.89584e-05,2.21094e-05,3.95818e-05},
      {3.94978e-05,2.23022e-05,1.88035e-05,1.72174e-05,1.71863e-05,1.88068e-05,2.20723e-05,3.95353e-05},
      {3.9916e-05,2.21984e-05,1.88392e-05,1.71723e-05,1.71486e-05,1.89526e-05,2.2952e-05,4.14933e-05},
      {3.95489e-05,2.21262e-05,1.88112e-05,1.76387e-05,1.75442e-05,1.8814e-05,2.2063e-05,3.95207e-05},
      {3.98739e-05,2.21045e-05,1.88703e-05,1.72723e-05,1.75426e-05,1.87692e-05,2.18787e-05,3.92996e-05},
      {3.99943e-05,2.2487e-05,1.88157e-05,1.7182e-05,1.72385e-05,1.89273e-05,2.22099e-05,3.9295e-05}};

//Da error for MC

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```
const float rochcor::mcor_maer[8]
[8]={4.14432e-05,2.20988e-05,1.872e-05,1.71647e-05,1.73018e-05,1.90136e-05,2.27066e-05,4.05287e-05},
{3.95907e-05,2.21115e-05,1.8984e-05,1.73846e-05,1.73801e-05,1.8959e-05,2.23286e-05,3.94786e-05},
{3.97194e-05,2.22952e-05,1.89242e-05,1.73341e-05,1.72628e-05,1.89584e-05,2.21094e-05,3.95818e-05},
{3.94978e-05,2.23022e-05,1.88035e-05,1.72174e-05,1.71863e-05,1.88068e-05,2.20723e-05,3.95353e-05},
{3.9916e-05,2.21984e-05,1.88392e-05,1.71723e-05,1.71486e-05,1.89526e-05,2.2952e-05,4.14933e-05},
{3.95489e-05,2.21262e-05,1.88112e-05,1.76387e-05,1.75442e-05,1.8814e-05,2.20633e-05,3.95207e-05},
{3.98739e-05,2.21045e-05,1.88703e-05,1.72723e-05,1.75426e-05,1.87692e-05,2.18787e-05,3.92996e-05},
{3.99943e-05,2.2487e-05,1.88157e-05,1.7182e-05,1.72385e-05,1.89273e-05,2.22099e-05,3.9295e-05}},

//=====
//</pt> mean for muon- in data after </pt> correction
const float rochcor::dmavg[8]
[8]={0.025841654,0.025169854,0.025011206,0.025395838,0.025418225,0.025015774,0.025224683,0.025974429},
{0.025861489,0.025125329,0.025010353,0.025500707,0.025489963,0.025008537,0.025137030,0.025832796},
{0.025821408,0.025186450,0.025037872,0.025501346,0.025483008,0.025041506,0.025113340,0.025784026},
{0.025788934,0.025194992,0.025012688,0.025448230,0.025462702,0.025014923,0.025197164,0.025867098},
{0.025760288,0.025174665,0.025016407,0.025392482,0.025471408,0.025029052,0.025175578,0.025861644},
{0.025806517,0.025155944,0.025037512,0.025453861,0.025444491,0.025031604,0.025155092,0.025817768},
{0.025869055,0.025189694,0.025015786,0.025439865,0.025442569,0.025016054,0.025147406,0.025839110},
{0.025888792,0.025193920,0.025004796,0.025439635,0.025450924,0.025051811,0.025184476,0.025903766}},

//</pt> mean for muon+ in data after </pt> correction
const float rochcor::dpavg[8]
[8]={0.025898904,0.025199348,0.025035358,0.025443318,0.025458991,0.025005425,0.025240268,0.025938705},
{0.025866088,0.025135635,0.024982141,0.025499841,0.025486708,0.025016742,0.025149977,0.025868440},
{0.025937212,0.025215783,0.025005637,0.025485235,0.025497530,0.025026424,0.025160232,0.025872083},
{0.026045614,0.025223491,0.025006442,0.025480239,0.025443261,0.025014746,0.025192345,0.026001787},
{0.026061459,0.025238992,0.024982766,0.025448465,0.025440474,0.025040136,0.025225223,0.025988278},
{0.025948545,0.025225443,0.025033229,0.025479361,0.025462158,0.025012956,0.025226031,0.025966973},
{0.025960053,0.025211227,0.025028419,0.025455877,0.025481075,0.025042283,0.025234109,0.025905996},
{0.025935873,0.025241859,0.025040274,0.025465336,0.025454850,0.025009889,0.025205653,0.025854941}},

//</pt> mean for muon- in MC after </pt> correction
const float rochcor::mavg[8]
[8]={0.025829786,0.025169473,0.025013846,0.025388393,0.025411355,0.025010805,0.025202152,0.025899664},
{0.025842260,0.025125429,0.025009772,0.025498847,0.025488838,0.025009478,0.025130944,0.025861163},
{0.025835888,0.025170311,0.025040208,0.025502037,0.025489045,0.025038262,0.025110804,0.025781080},
{0.025842419,0.025224742,0.025017573,0.025444446,0.025459245,0.025017168,0.025209678,0.025878395},
{0.025842973,0.025199329,0.025020778,0.025396703,0.025472987,0.025026565,0.025183608,0.025923479},
{0.02577123,0.025156465,0.025038525,0.025458770,0.025448435,0.025031274,0.025156820,0.025861010},
{0.025817883,0.025186268,0.025014042,0.025439804,0.025442149,0.025018050,0.025133750,0.025758674},
{0.025895147,0.025189016,0.025003572,0.025440494,0.025450122,0.025048328,0.025154201,0.025781366}},

//</pt> mean for muon+ in MC after </pt> correction
const float rochcor::mpavg[8]
[8]={0.025891062,0.025207169,0.025039901,0.025437318,0.025466886,0.025010214,0.025252711,0.025955304},
{0.025923372,0.025148689,0.024985494,0.025500826,0.025487326,0.025016959,0.025148572,0.025869497},
{0.025934660,0.025221729,0.025004507,0.025485006,0.025499493,0.025023891,0.025161419,0.025877950},
{0.025967738,0.025198407,0.025006250,0.025472374,0.025439397,0.025010166,0.025180818,0.025988669},
{0.025943425,0.025213365,0.024983108,0.025441826,0.025440607,0.025037579,0.025209857,0.025911656},
{0.025940407,0.025213463,0.025022946,0.025476588,0.025460014,0.025013135,0.025221339,0.025940310},
{0.026030080,0.025217061,0.025025315,0.025456126,0.025483171,0.025038431,0.025224331,0.025973260},
{0.025930178,0.025226172,0.025042930,0.025471031,0.025454989,0.025012659,0.025231461,0.026010900}},

//expected </pt> mean for muon-
const float rochcor::gmavg[8]
[8]={0.025790221,0.025161257,0.025022221,0.025390338,0.025409575,0.025017116,0.025205651,0.025904795},
{0.025802678,0.025120254,0.025007872,0.025500809,0.025491116,0.025011915,0.025124371,0.025846386},
{0.025809746,0.025177623,0.025035821,0.025499987,0.025489641,0.025035654,0.025097274,0.025771338},
{0.025811913,0.025220559,0.025007018,0.025439424,0.025452823,0.025011885,0.025207556,0.025843860},
{0.025796618,0.025174836,0.025021547,0.025393617,0.025472036,0.025024732,0.025169472,0.025901156},
{0.025808446,0.025174331,0.025037233,0.025457485,0.025454629,0.025036248,0.025154898,0.025840150},
{0.025862845,0.025189358,0.025011621,0.025438847,0.025440970,0.025019594,0.025144068,0.025766760},
{0.025878162,0.025184763,0.025009174,0.025440946,0.025451039,0.02501075,0.025176864,0.025852947}},

//expected </pt> mean for muon+
const float rochcor::gpavg[8]
[8]={0.025908405,0.025218578,0.025031606,0.025435431,0.025460356,0.025000306,0.025254632,0.025972624},
{0.025948762,0.025140961,0.024986829,0.025503778,0.025485842,0.025009237,0.025151920,0.025881469},
{0.025964063,0.025219650,0.025011025,0.025486638,0.025496719,0.025023292,0.025171933,0.025885515},
{0.025972750,0.025210628,0.025009736,0.025469294,0.025441843,0.025010373,0.025184270,0.025986538},
{0.025953347,0.025233249,0.024987860,0.025444329,0.025446995,0.025050964,0.025220391,0.025911981},
{0.025888999,0.025200229,0.025026289,0.025479421,0.025467102,0.025009927,0.025231107,0.025973808},
{0.025933318,0.025203479,0.025025216,0.025458711,0.025482780,0.025030249,0.025208361,0.025972066},
{0.025925660,0.025227521,0.025038599,0.025465861,0.025453311,0.025015339,0.025217012,0.025924793}},

//</pt> mean error for muon- in data after </pt> correction
const float rochcor::dmavger[8]
[8]={0.000094781,0.000047999,0.000041860,0.000038923,0.000039189,0.000040967,0.000048625,0.000090058},
{0.000086684,0.000047942,0.000040738,0.000039022,0.000038477,0.000041588,0.000047953,0.000086533},
{0.000089164,0.000049448,0.000041571,0.000038743,0.000038423,0.000041380,0.000048372,0.000085836},
{0.000088669,0.000048196,0.000040702,0.000039367,0.000038769,0.000041168,0.000047432,0.000086398},
{0.000088331,0.000048232,0.000041698,0.000038009,0.000038899,0.000042064,0.000049539,0.000092915},
{0.000083759,0.000046783,0.000040415,0.000039631,0.000039396,0.000040585,0.000047336,0.000085408},
{0.000089253,0.000048680,0.000041308,0.000039114,0.000039230,0.000041021,0.000047499,0.000086100},
{0.000086278,0.000047879,0.000041452,0.000039020,0.000039103,0.000040833,0.000047505,0.000083989}},

//</pt> mean error for muon+ in data after </pt> correction
const float rochcor::dpavger[8]
[8]={0.000096943,0.000048764,0.000040561,0.000038405,0.000038613,0.000041850,0.000049688,0.000093193},
{0.000087706,0.000048155,0.000041157,0.000038186,0.000038658,0.000041226,0.000048276,0.000087221},
{0.000091731,0.000049951,0.000040907,0.000037846,0.000038277,0.000040250,0.000048345,0.000089318},
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{0.000088730,0.000049144,0.000040603,0.000039049,0.000038586,0.000041204,0.000047846,0.000087902},
{0.000091823,0.000049008,0.000041331,0.000038663,0.000038313,0.000040760,0.000048360,0.000096998},
{0.000088889,0.000048584,0.000040374,0.000039552,0.000038549,0.000040857,0.000047795,0.000090927},
{0.000091940,0.000048977,0.000040074,0.000038609,0.000039202,0.000040513,0.000048332,0.000090663},
{0.000091678,0.000049982,0.000040900,0.000037971,0.000038356,0.000040582,0.000049775,0.000088709}};

//<1/pt> mean error for muon- in MC after <1/pt> correction
const float rochcor:mmaavg[8]
[8]={0.000033353,0.000018001,0.000015577,0.000014673,0.000014776,0.000015793,0.000018522,0.000032906},
{0.000031871,0.000017903,0.000015710,0.000014862,0.000014879,0.000015706,0.000018067,0.000031861},
{0.000031958,0.000018166,0.000015739,0.000014824,0.000014772,0.000015770,0.000017968,0.000031917},
{0.000031690,0.000018190,0.000015593,0.000014740,0.000014654,0.000015547,0.000017923,0.000031822},
{0.000031904,0.000018024,0.000015666,0.000014732,0.000014683,0.000015717,0.000018638,0.000033402},
{0.000031913,0.000017936,0.000015516,0.000014978,0.000014997,0.000015576,0.000017953,0.000031782},
{0.000032265,0.000017937,0.000015632,0.000014745,0.000014902,0.000015573,0.000017820,0.000031701},
{0.000032003,0.000018215,0.000015568,0.000014602,0.000014687,0.000015694,0.000017944,0.000031575}};

//<1/pt> mean error for muon+ in MC after <1/pt> correction
const float rochcor:mpavg[8]
[8]={0.000034053,0.000018092,0.000015359,0.000014478,0.000014588,0.000015629,0.000018583,0.000033402},
{0.000032842,0.000018035,0.000015629,0.000014694,0.000014715,0.000015529,0.000018268,0.000032355},
{0.000032480,0.000018209,0.000015511,0.000014642,0.000014608,0.000015588,0.000018088,0.000032216},
{0.000032489,0.000018304,0.000015477,0.000014593,0.000014589,0.000015456,0.000018017,0.000032472},
{0.000032713,0.000018138,0.000015452,0.000014475,0.000014508,0.000015638,0.000018726,0.000034168},
{0.000032588,0.000018129,0.000015495,0.000014957,0.000014806,0.000015497,0.000018047,0.000032568},
{0.000032852,0.000018166,0.000015527,0.000014597,0.000014904,0.000015377,0.000017880,0.000032255},
{0.000032909,0.000018395,0.000015588,0.000014575,0.000014612,0.000015553,0.000018219,0.000032514}};

//expected <1/pt> mean error for muon-
const float rochcor:gmaavg[8]
[8]={0.000033305,0.000018013,0.000015602,0.000014670,0.000014787,0.000015789,0.000018485,0.000032869},
{0.000031711,0.000017933,0.000015720,0.000014862,0.000014882,0.000015712,0.000018044,0.000031781},
{0.000032033,0.000018211,0.000015742,0.000014824,0.000014773,0.000015760,0.000017992,0.000031817},
{0.000031982,0.000018281,0.000015594,0.000014744,0.000014655,0.000015559,0.000017986,0.000031951},
{0.000031963,0.000018039,0.000015673,0.000014740,0.000014692,0.000015726,0.000018672,0.000033404},
{0.000031755,0.000017997,0.000015532,0.000014997,0.000015012,0.000015580,0.000017991,0.000031761},
{0.000032043,0.000017993,0.000015624,0.000014742,0.000014902,0.000015559,0.000017864,0.000031638},
{0.000032102,0.000018273,0.000015570,0.000014597,0.000014690,0.000015703,0.000018056,0.000031653}};

//expected <1/pt> mean error for muon+
const float rochcor:gpavg[8]
[8]={0.000034133,0.000018188,0.000015364,0.000014497,0.000014579,0.000015623,0.000018648,0.000033163},
{0.000032771,0.000018090,0.000015641,0.000014708,0.000014714,0.000015529,0.000018337,0.000032306},
{0.000032749,0.000018267,0.000015525,0.000014635,0.000014608,0.000015588,0.000018113,0.000032224},
{0.000032545,0.000018326,0.000015480,0.000014582,0.000014589,0.000015457,0.000018098,0.000032449},
{0.000032795,0.000018238,0.000015458,0.000014477,0.000014509,0.000015650,0.000018778,0.000034133},
{0.000032252,0.000018151,0.000015491,0.000014952,0.000014821,0.000015500,0.000018136,0.000032514},
{0.000032443,0.000018168,0.000015532,0.000014611,0.000014909,0.000015399,0.000017942,0.000032251},
{0.000032946,0.000018459,0.000015592,0.000014565,0.000014611,0.000015556,0.000018173,0.000032534}};

=====
<1/pt> uncorrected (<1/pt> mean before <1/pt> correction) :

//<1/pt> mean for muon- in data before <1/pt> correction
double dmavg[8][8]={0.026492871,0.025268002,0.024892083,0.025337446,0.025425289,0.024914381,0.025582753,0.027171953},
{0.026635018,0.025272859,0.024939634,0.025373931,0.025370730,0.024955504,0.025322440,0.026049435},
{0.026102289,0.025328333,0.025093074,0.025564667,0.025482729,0.025127156,0.025281423,0.026043956},
{0.024794532,0.024934609,0.025059981,0.025596908,0.025621391,0.025141679,0.025213101,0.025986010},
{0.024135139,0.024836214,0.025051453,0.025370907,0.025559896,0.025326808,0.025363551,0.025507544},
{0.02645012,0.024910051,0.025051346,0.025420997,0.025422082,0.025071560,0.025241451,0.025593087},
{0.026011440,0.025119445,0.025031240,0.025378315,0.025383290,0.024931185,0.025163910,0.026894987},
{0.026041813,0.025226665,0.024931415,0.025331154,0.025302373,0.024896587,0.025302896,0.027226964}};

//<1/pt> mean for muon+ in data before <1/pt> correction
double dpavg[8][8]={0.025389745,0.025177606,0.025100877,0.025622610,0.025507548,0.025094484,0.024979060,0.024852808},
{0.024729344,0.024891724,0.025010224,0.025610377,0.025550227,0.025007095,0.025056458,0.025393467},
{0.025662887,0.025108280,0.024954178,0.025356417,0.025403009,0.024965393,0.025087057,0.025568866},
{0.027248204,0.025561252,0.024925931,0.025381634,0.025346073,0.024931908,0.025185847,0.025793832},
{0.027628686,0.025562310,0.024886694,0.025409635,0.025341218,0.024862411,0.025165233,0.02610432},
{0.027123924,0.025664962,0.025124847,0.025475543,0.025476147,0.025050001,0.025273582,0.026109861},
{0.026004479,0.025398144,0.025068698,0.025488609,0.025518275,0.025125515,0.025360198,0.025071210},
{0.025915249,0.025368111,0.025080636,0.025491344,0.025592404,0.025210851,0.025202279,0.024644694}};

//<1/pt> mean for muon- in MC before <1/pt> correction
double mmaavg[8][8]={0.026624795,0.025306714,0.024899893,0.025250186,0.025273553,0.024859596,0.025279625,0.026065266},
{0.026690050,0.025142430,0.024918383,0.025421467,0.025412924,0.024976492,0.025321710,0.026477450},
{0.026247031,0.025168527,0.025053712,0.025520318,0.025506625,0.025096253,0.025194950,0.025851790},
{0.026425474,0.025560831,0.025161728,0.025554159,0.025564367,0.025136953,0.025463984,0.026130009},
{0.026502446,0.025604693,0.025181958,0.025527864,0.025595780,0.025160845,0.025469917,0.026680691},
{0.024825620,0.025054113,0.025119388,0.025531193,0.025530827,0.025096948,0.025296757,0.026512647},
{0.024523444,0.024957859,0.024994065,0.025418046,0.025413370,0.024979073,0.025050738,0.025633161},
{0.026261963,0.025314416,0.024904536,0.025341607,0.025343962,0.024919833,0.024550382,0.024161510}};

//<1/pt> mean for muon+ in MC before <1/pt> correction
double mpavg[8][8]={0.025193835,0.025117982,0.025162911,0.025564479,0.025591580,0.025167563,0.025262719,0.025899351},
{0.025119911,0.025178433,0.025086333,0.025595447,0.025572997,0.025063951,0.024994377,0.025321052},
{0.025580221,0.025283817,0.024998483,0.025476049,0.025485222,0.024984114,0.025138997,0.025925580},
{0.025459740,0.024903628,0.024862909,0.025359179,0.025330529,0.024891705,0.024963760,0.025810307},
{0.025318102,0.024817109,0.024818296,0.025302891,0.025306239,0.024906096,0.024966050,0.025204038},
{0.026876390,0.025346698,0.024938991,0.025390453,0.025367309,0.024951496,0.025120726,0.025362103},
{0.027372756,0.025485613,0.025049528,0.025462405,0.025495907,0.025067189,0.025343727,0.026151365},
{0.025668415,0.025156385,0.025145394,0.025557635,0.025546934,0.025135592,0.025863462,0.027647602}};

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