These are reconstruction errors. You could have a real mc pion with a momentum which is completely screwed, and this is another reco error. The pid algorithm is simply associating to each track (bad or wrong, it does not care) one id from mc, when possible. When this is not possible, i.e. MVD noise tracklets, then it gives the same probability to all the ids.

If you want to have the perfect world, then you should use also ideal tracking w/o kalman, and not only ideal identification, to take out the reconstruction bias.

If you want to have a relly good ideal id on reco tracks, first one should define what is really a good track, and how to define really efficiency. But this is another issue, and the tracking discussion is also focused on this point.