The exact values of what is to be stored in the floats for each muon has been discussed in words, but it would help to have it clearly stated in equations. First consider muon corrections. For each muon (that passes some selection), the MET gets corrected as

$$\text{corMetGlobalMuons} = \text{caloMET} - \sum_{\text{muons}} \vec{p}_T + \sum_{\text{muons}} \vec{E}_{MIP}, \tag{1}$$

where the sum is over muons that have passed some selection, the p_T is of the global muons, and E_{MIP} is the sum of the energy left in the ECAL and HCAL by the MIP. The vector notation is to signify that the correction is done component by component and the magnitude of the MET is calculated at the end.

It is proposed to store the components of $\vec{E}_{MIP}$. That is,

$$(E_x, E_y) = (\vec{E}_{MIP} \cdot \hat{x}, \vec{E}_{MIP} \cdot \hat{y}). \tag{2}$$

For tcMET, muons that pass selection are treated similiarly to that outlined above. However, muons that do not pass selection are treated as pions. The correction for such a muon is

$$\text{tcMET}+= \left(- \sum_{\text{muons}} \vec{p}_T + \sum_{\text{muons}} RF(\eta, p_T) * p * \hat{n} \right), \tag{3}$$

where the sum here is over muons that **do not** pass selection. RF is the single pion response function that takes as its arguments the rapidity and transverse momentum of the track and returns a float, p is the magnitude of the track momentum, and $\hat{n}$ is a unit vector specifying the expected position at which the track enters the calorimeter. It is important to recognize that only muons matched to track can be corrected in such a way.

For tcMET, it is proposed to store the components of the last term. That is,

$$(E_x, E_y) = (RF * p * \hat{n} \cdot \hat{x}, RF * p * \hat{n} \cdot \hat{y}) \tag{4}$$