

This is m_{T2} the “Stransverse Mass”

$$m_{T2}(v_1, v_2, \not{\mathbf{p}}_T, m_i^{(1)}, m_i^{(2)}) \equiv \min_{\sum \mathbf{q}_T = \not{\mathbf{p}}_T} \left\{ \max \left(m_T^{(1)}, m_T^{(2)} \right) \right\}$$

The most conservative
partition consistent with the
constraint

Take the better of the
two lower bounds

It is the generalisation of transverse mass to pair production.
Clear how to generalise it to any other types of production.