THE OR METHOD

$$N_{OR/BX} = 1 - e^{-\varepsilon_{sing}\mu} \qquad \mu = \frac{-\ln(1 - N_{OR/BX})}{\varepsilon_{sing}} \qquad L = \frac{-f_{BX} \times \ln(1 - N_{OR/BX})}{\sigma_{vis}^{OR}}$$

MBTS:

Pythia: $\sigma_{vis}^{OR} = \varepsilon_{sing} \times \sigma_{inel} = 0.931 \times 71.5 = 66.57$ mb

Phojet: $\sigma_{vis}^{OR} = \varepsilon_{sing} \times \sigma_{inel} = 0.967 \times 76.2 = 73.69$ mb

VDM: $\sigma_{vis}^{OR} = 58.64$ mb

LUCID:

Pythia: $\sigma_{vis}^{OR} = \varepsilon_{sing} \times \sigma_{inel} = 0.6531 \times 71.5 = 46.69$ mb

Pythia+MBTS: (run 152166) $\sigma_{vis}^{OR} = \varepsilon_{sing} \times \sigma_{inel} = 0.6339 \times 71.5 = 45.33$ mb

Phojet: $\sigma_{vis}^{OR} = \varepsilon_{sing} \times \sigma_{inel} = 0.7005 \times 76.2 = 53.38$ mb

VDM: $\sigma_{vis}^{OR} = 40.18$ mb
