

CC π^0 update

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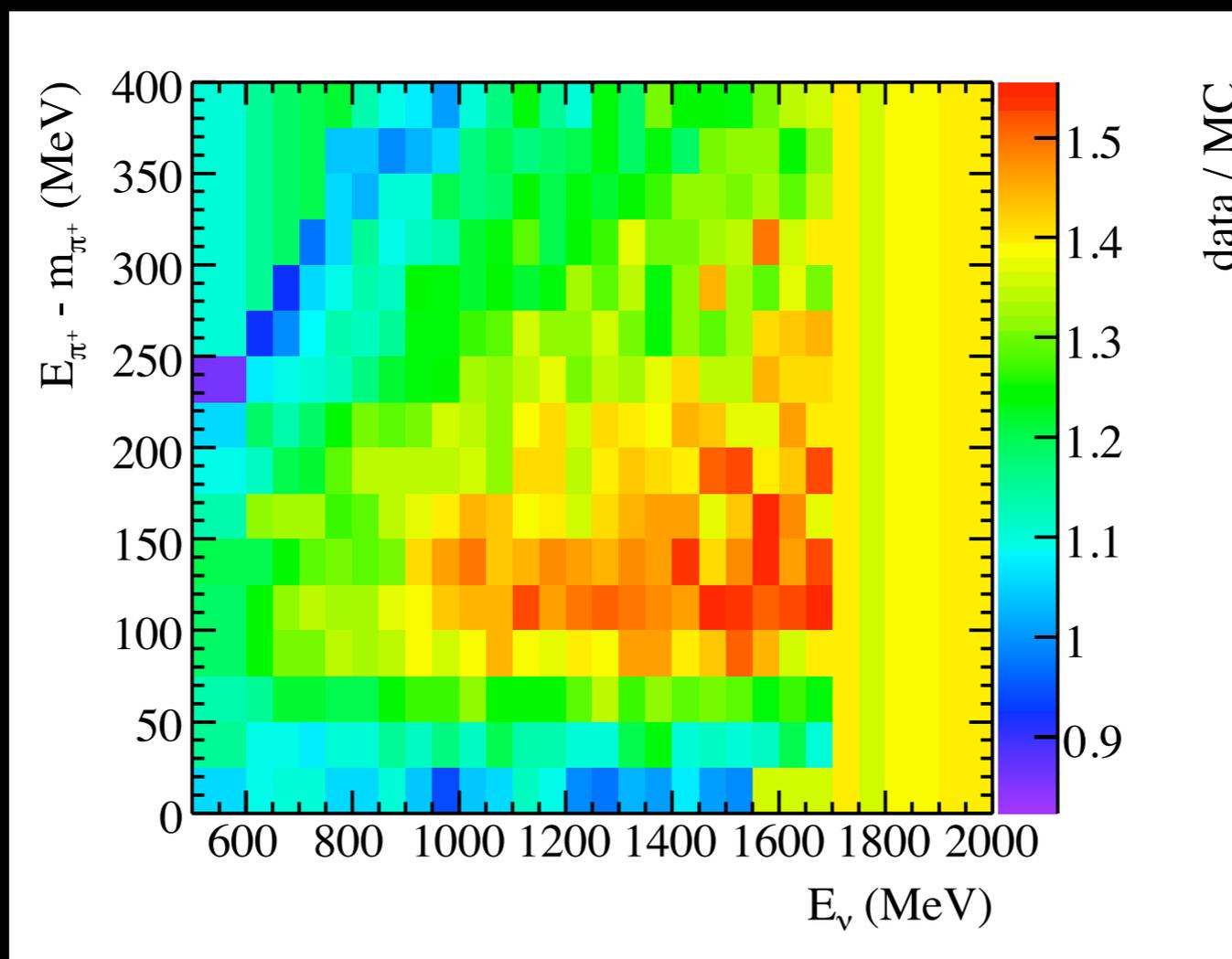
- Backgrounds

Observable modes

- **CC π^0** : One and only one μ^- , and π^0 from the target nucleus with no other mesons from a ν_μ interaction.
- **CC π^+** : One and only one μ^- , and π^+ from the target nucleus with no other mesons from a ν_μ interaction.
- **CCQE**: One and only one μ^- from the target nucleus with no mesons from a ν_μ interaction.
- **CCmulti- π** : One and only one μ^- , and and greater than 1 π from the target nucleus with no other mesons from a ν_μ interaction.
- **CC π^-** : One and only one μ^- , and π^- from the target nucleus with no other mesons.
- **NCmulti- π** : A ν and and greater than 1 π from the target nucleus with no other mesons.
- **NC π^0** : A ν and π^0 from the target nucleus with no other mesons.
- **NC π^+** : A ν and π^+ from the target nucleus with no other mesons.
- **DIS**: Channels 91 and 92 and NOT any of the above.

CC π^+ re-weighting

- I used the mixed re-weighting technique talked about last week.
- 2-D reweighting with the overflows and un-reported regions are set by the I-D x-sec ratio.



CV MC separated by observable modes

- $CC\pi^+$ has been re-weighted.
- The remaining DIS is absorbed into “others” because it is less than 1% of the backgrounds.

