### Remove peak from input

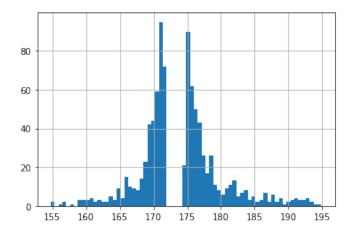


Figure: Histogram showing  $m_t$  of events having at least 1.5 GeV difference to the mean

# Performance with removed peak

method	mean absolute difference	sd of abs. difference
AdaBoostRegressor	4.9756	4.2130
NN	4.6451	3.9294
always the mean	4.6730	3.7618
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Possibly some potential for early stopping the NN because the validation loss starts to increase at some point in training

#### Reduce peak in input

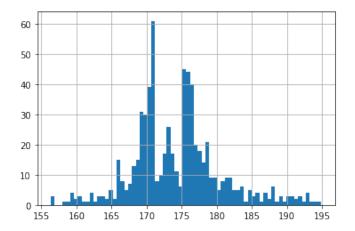


Figure: Histogram showing  $m_t$  of events having at least 2 GeV difference to the mean and 1% of the remaining events

## Performance with reduced peak

method	mean absolute difference	sd of abs. difference
AdaBoostRegressor	4.6830	3.7100
NN	4.7408	4.0060
always the mean	4.4119	3.7618

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#### Use multiple masses

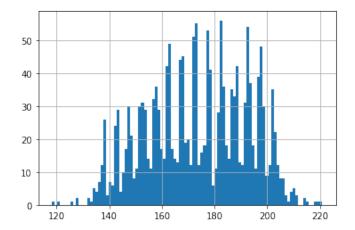


Figure: Histogram showing  $m_t$  of events from multiple simulations with  $m_t \in \{140, 145, \ldots, 200\}$ . Countet masses differ by at least 1.5 GeV from the mean

## Performance with multiple masses

method	mean absolute difference	sd of abs. difference
AdaBoostRegressor	15.6931	9.7363
NN	15.8156	10.0516
always the mean	16.0350	9.7038

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