

We need to pick a threshold (vertical line on the plot)

Everything right of that threshold is classified as **signal**, everything left is classified as **background**Let's start with a threshold at BDT output = 1

Our background rejection would be 100% but our signal efficiency would be 0%

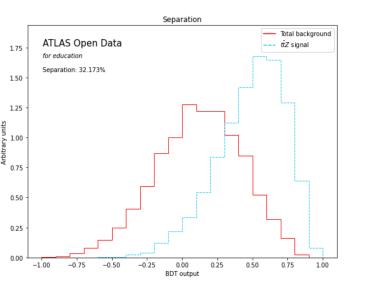
This is the ROC top left

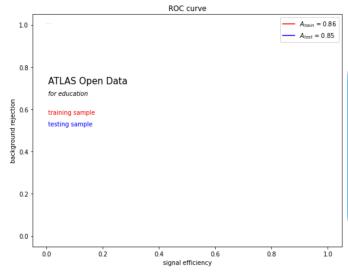
Sliding that threshold to -1 draws the ROC

Similar ROCs for **training** and **testing** is another sign we haven't overtrained!

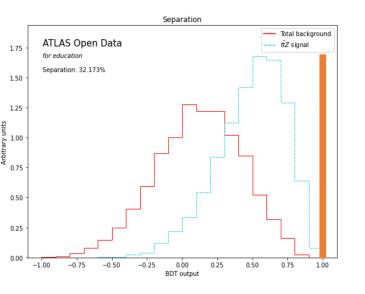
We aim for high Separation & A

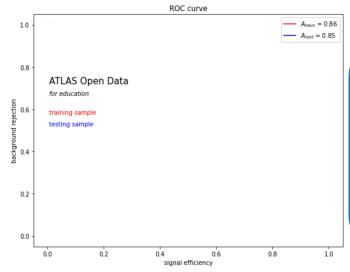
Separation >30% and A>0.85 isn't too bad! 🦾



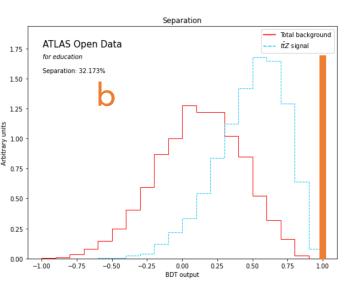


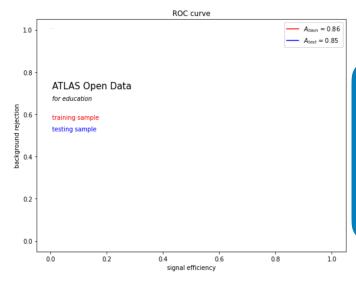






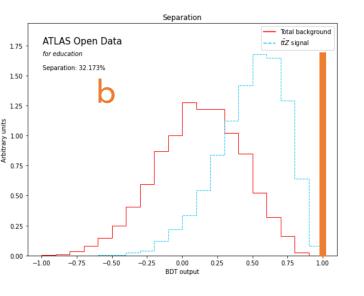
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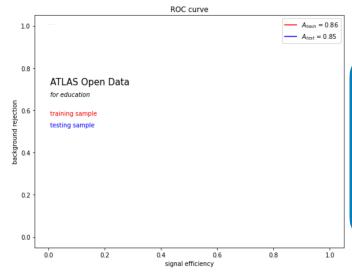




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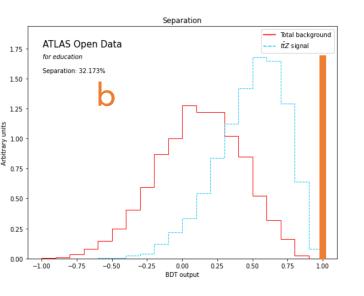
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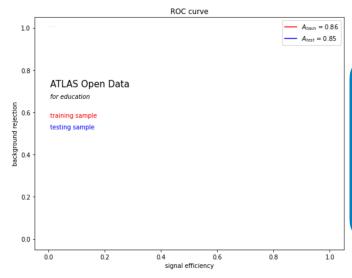




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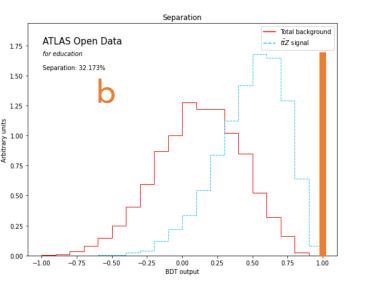


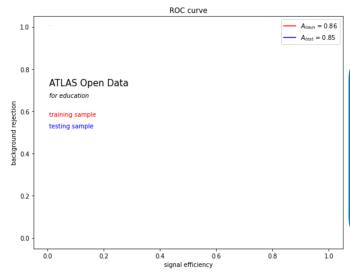


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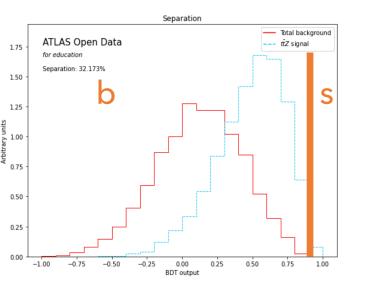


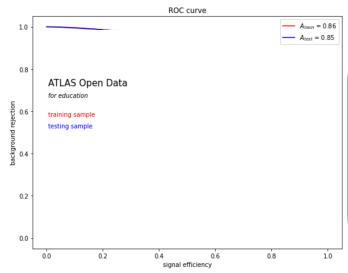


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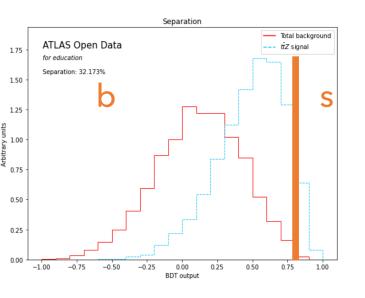


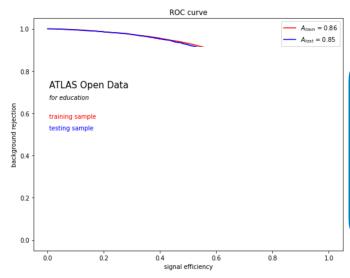
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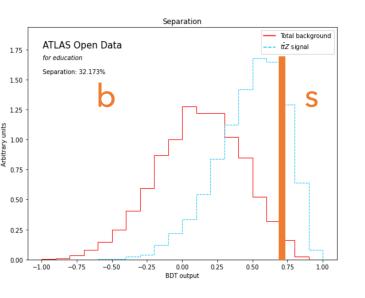


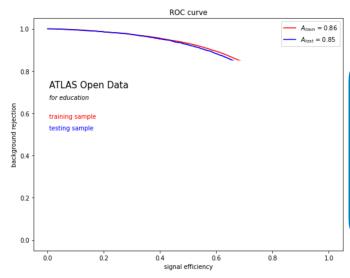
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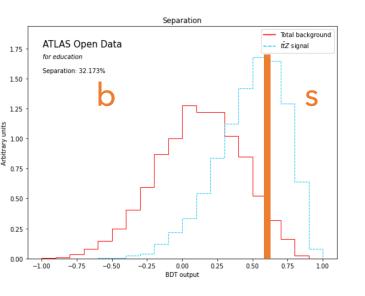


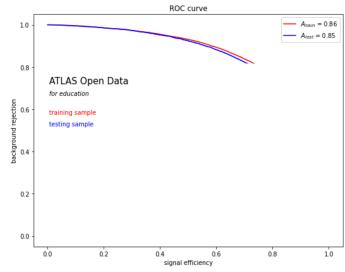
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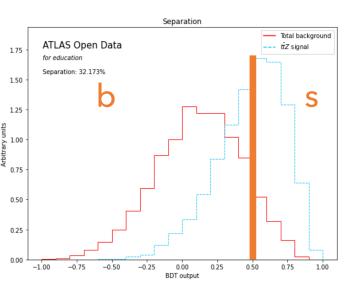


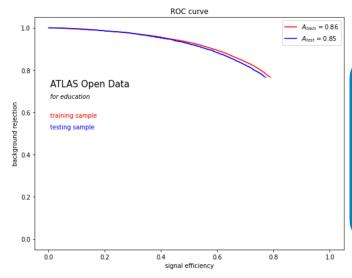
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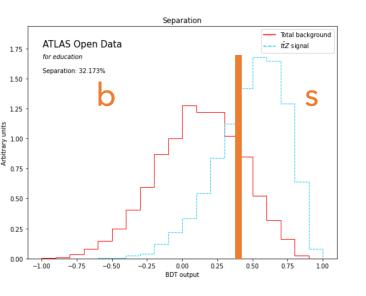


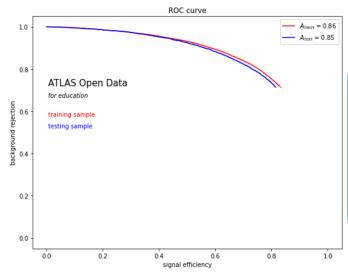
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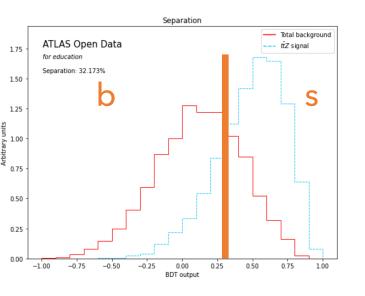


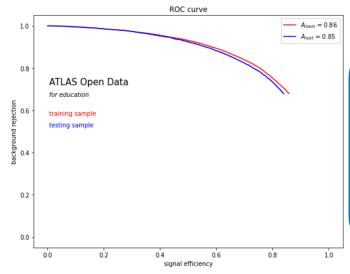
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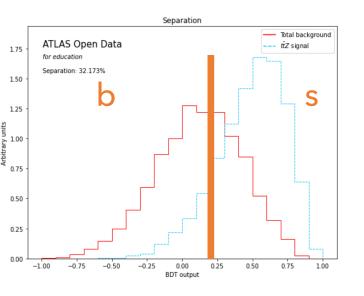


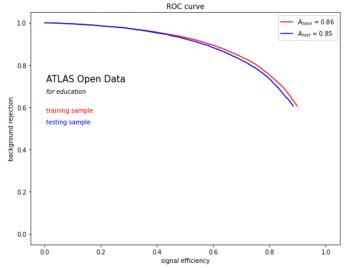
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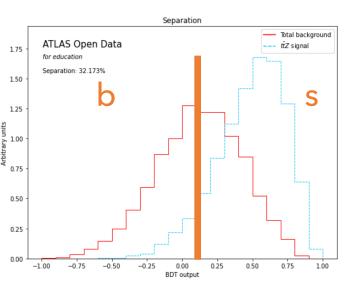


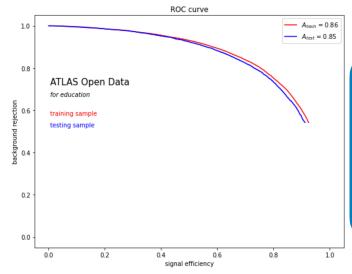
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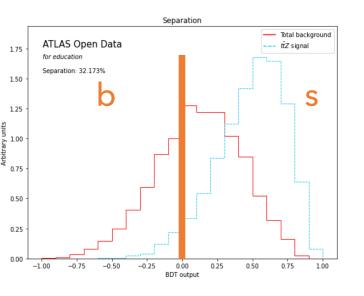


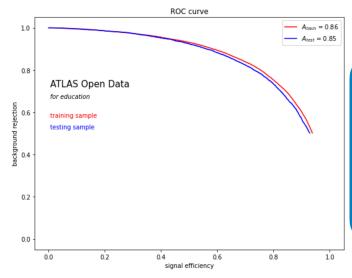
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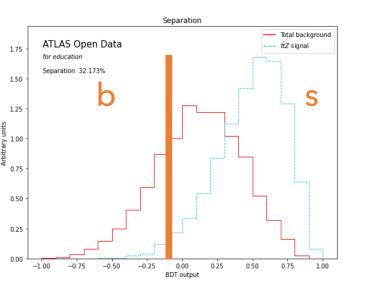


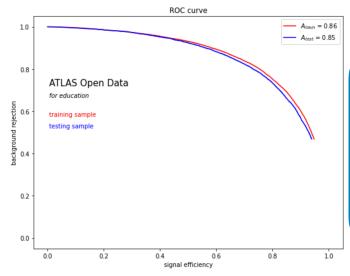
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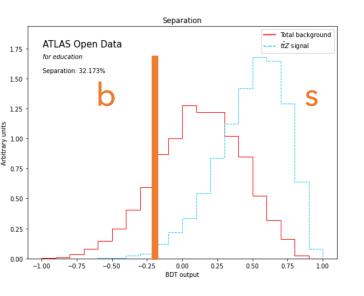


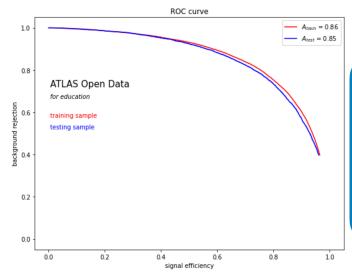
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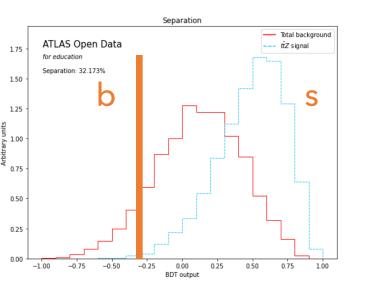


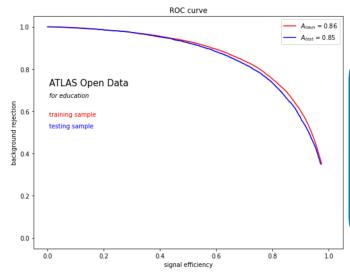
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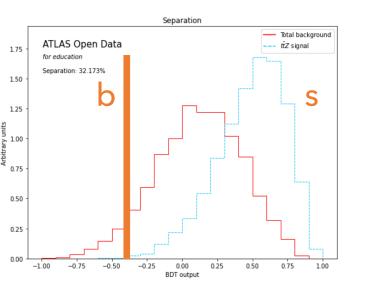


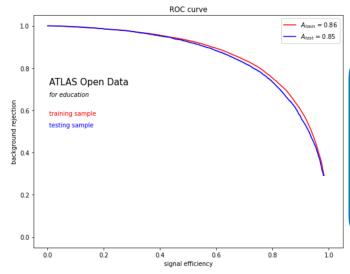
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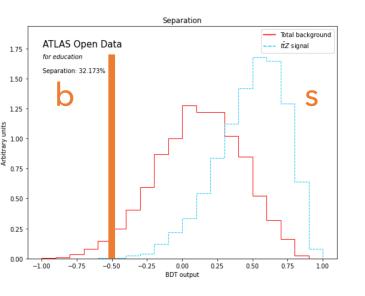


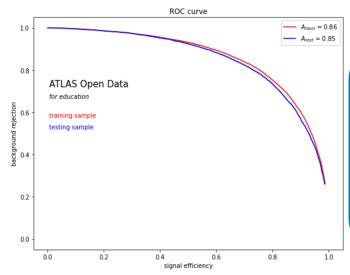
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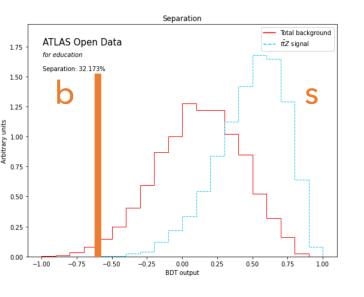


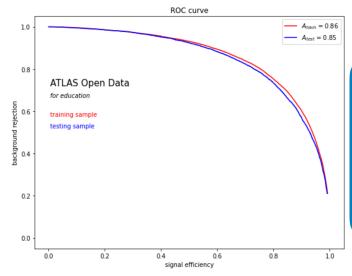
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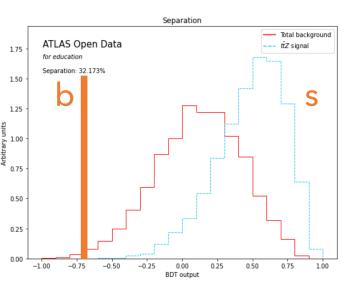


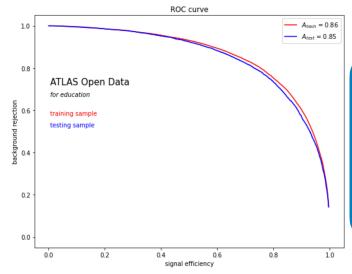
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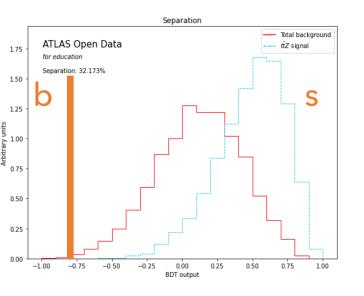


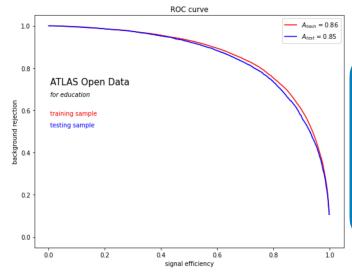
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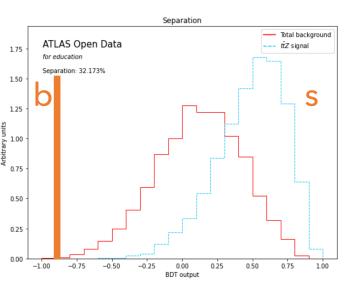


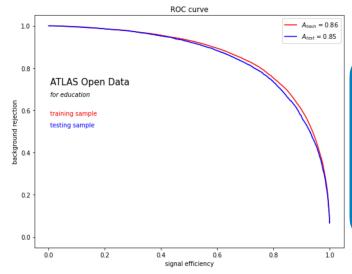
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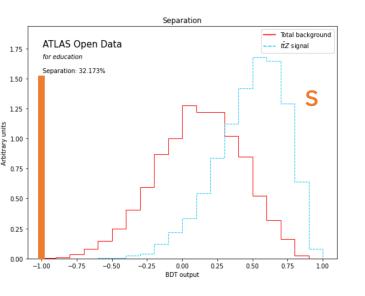


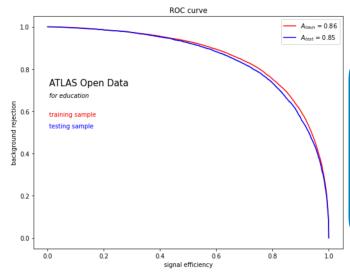
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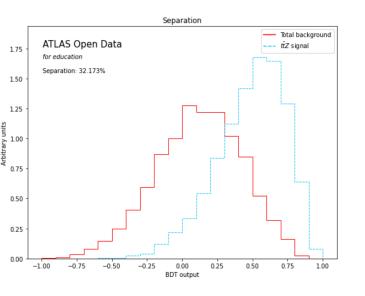
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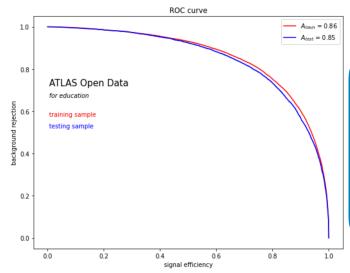
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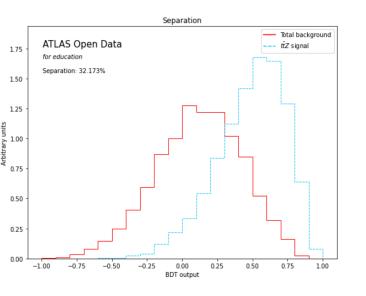
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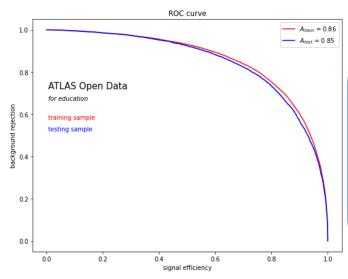
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