

1 EVIDENCE FOR DECAYS OF THE HIGGS BOSON TO TAU
2 LEPTONS AT ATLAS

3 Alexander Tuna

4 A DISSERTATION

5 in

6 Physics and Astronomy

7 Presented to the Faculties of The Univeristy of Pennsylvania
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ABSTRACT

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EVIDENCE FOR DECAYS OF THE HIGGS BOSON TO TAU LEPTONS AT ATLAS

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Alexander Tuna

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H.H. Williams

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Preface

72 This is the preface. Blah blah blah blah blah blah. Blah blah blah blah blah blah. Blah
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Ryan Reece

CERN, December 2012

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CHAPTER 1

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Introduction

87 Here is a citation [1].

88

CHAPTER 2

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$H \rightarrow \tau\tau$ analysis strategy

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The strategy of the $H \rightarrow \tau\tau$ strategy is described.

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2.1 Introduction

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2.2 Categorization

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2.3 $\tau\tau$ mass reconstruction

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2.4 MVA discrimination

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Here is a citation [1].

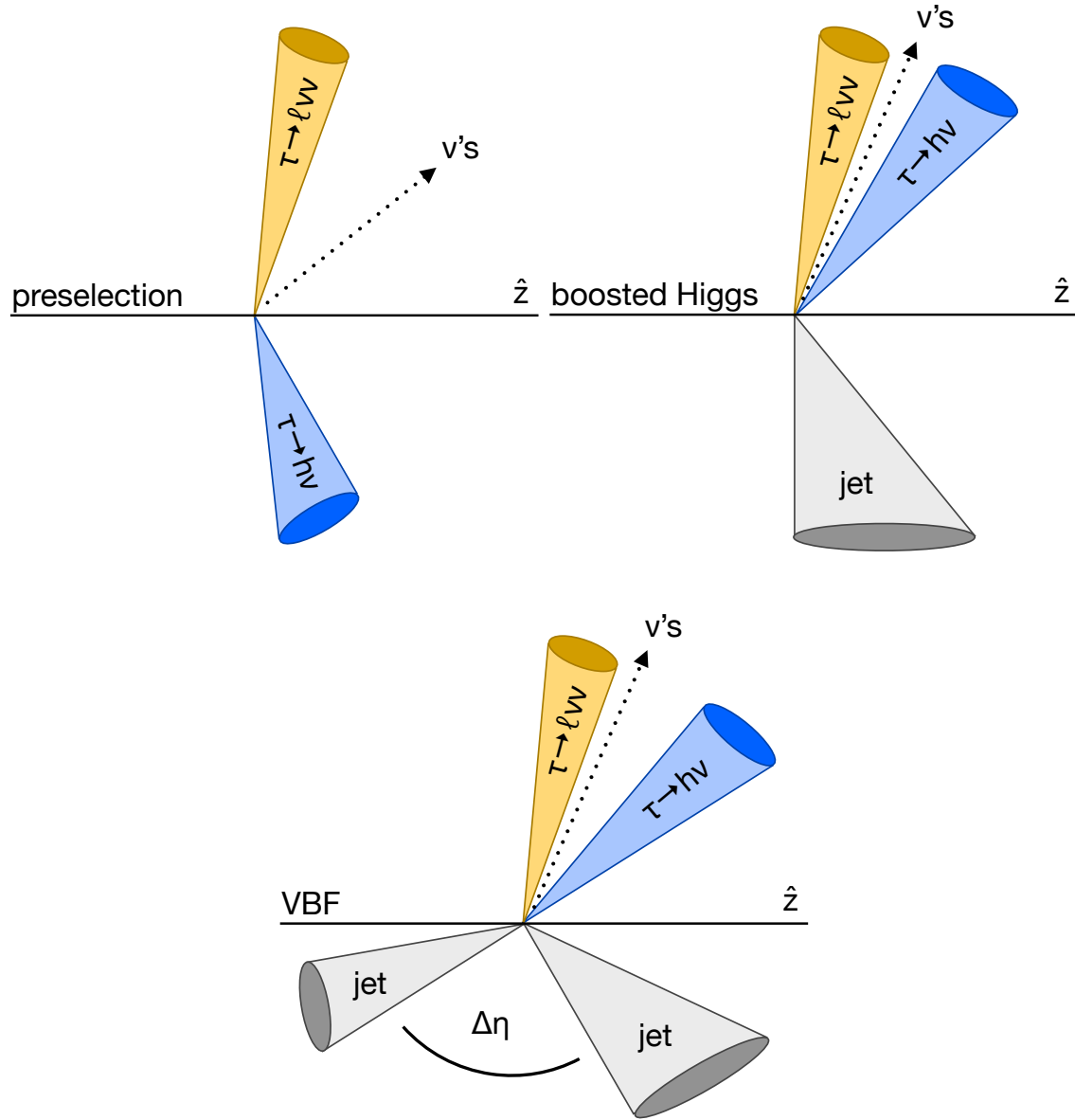


Figure 2.1: Variables.

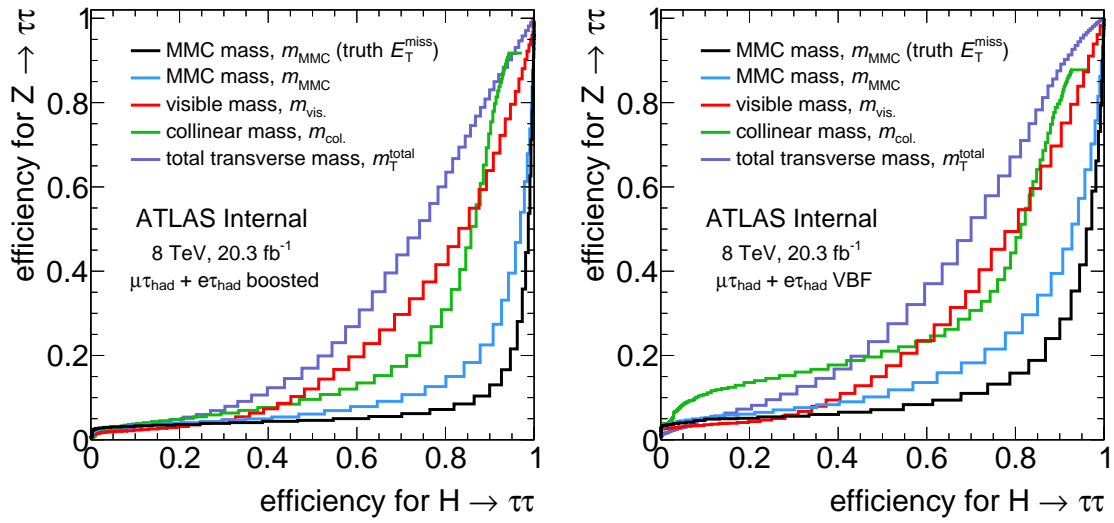


Figure 2.2: Variables.

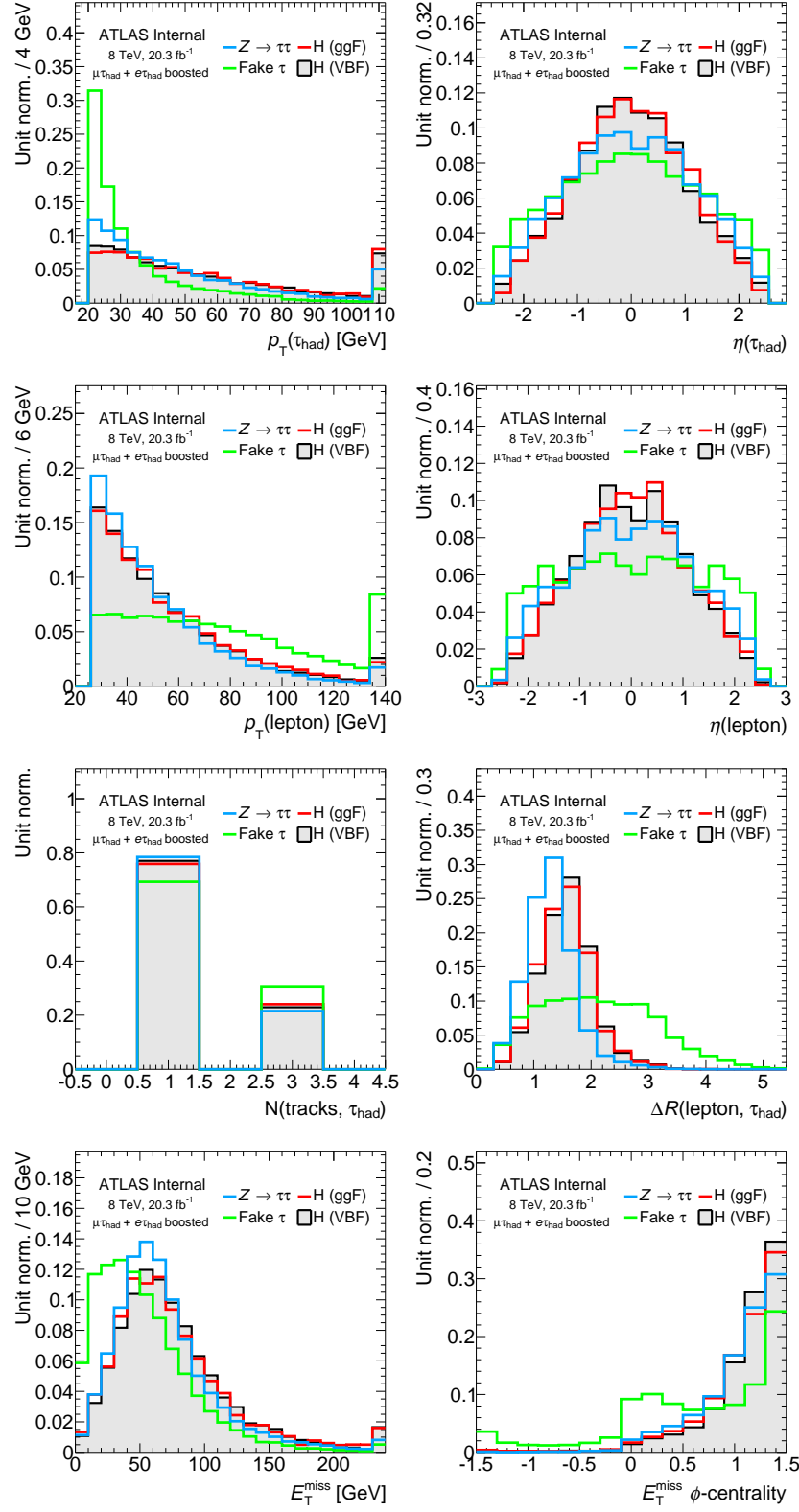


Figure 2.3: Variables.

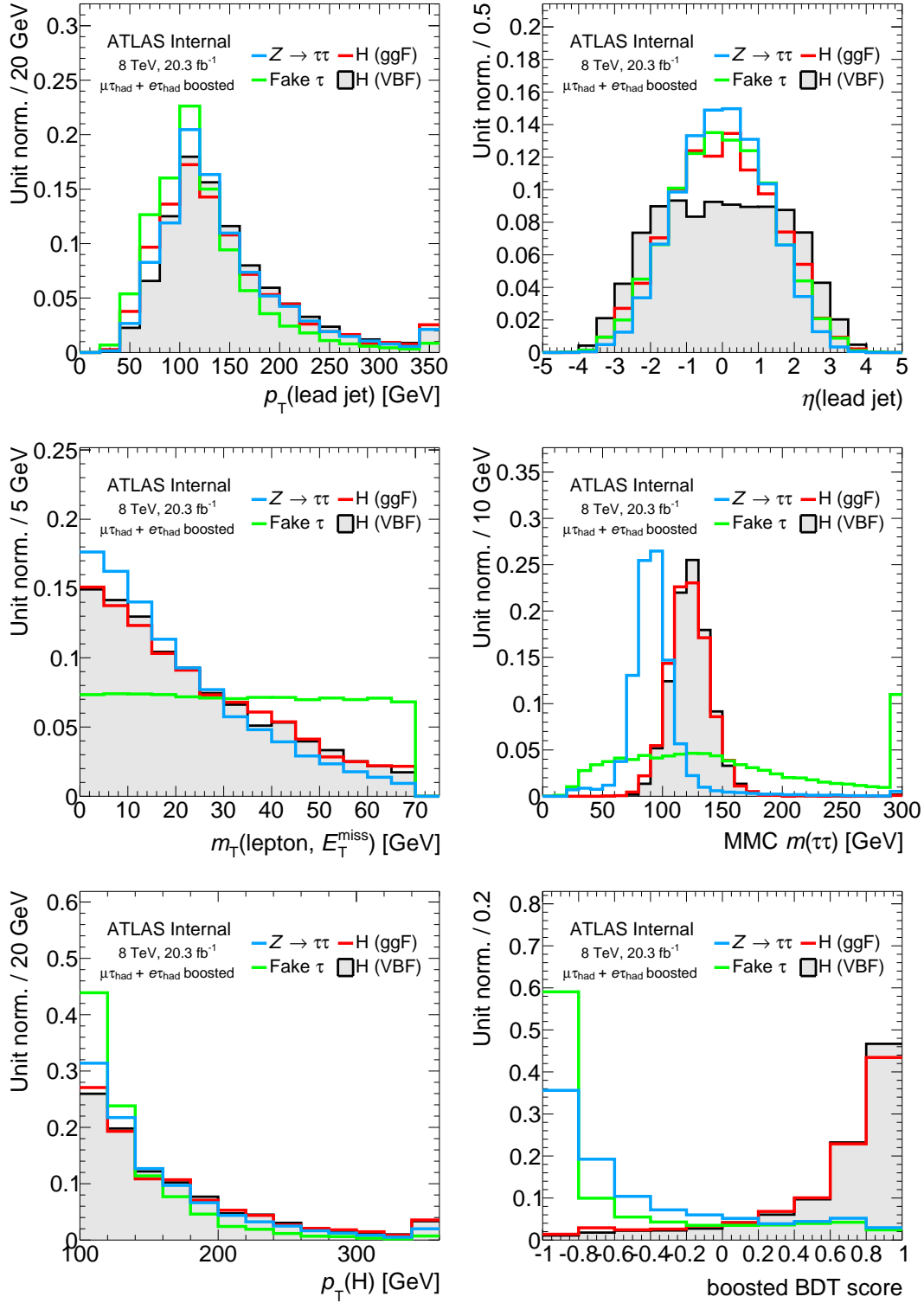


Figure 2.4: Variables.

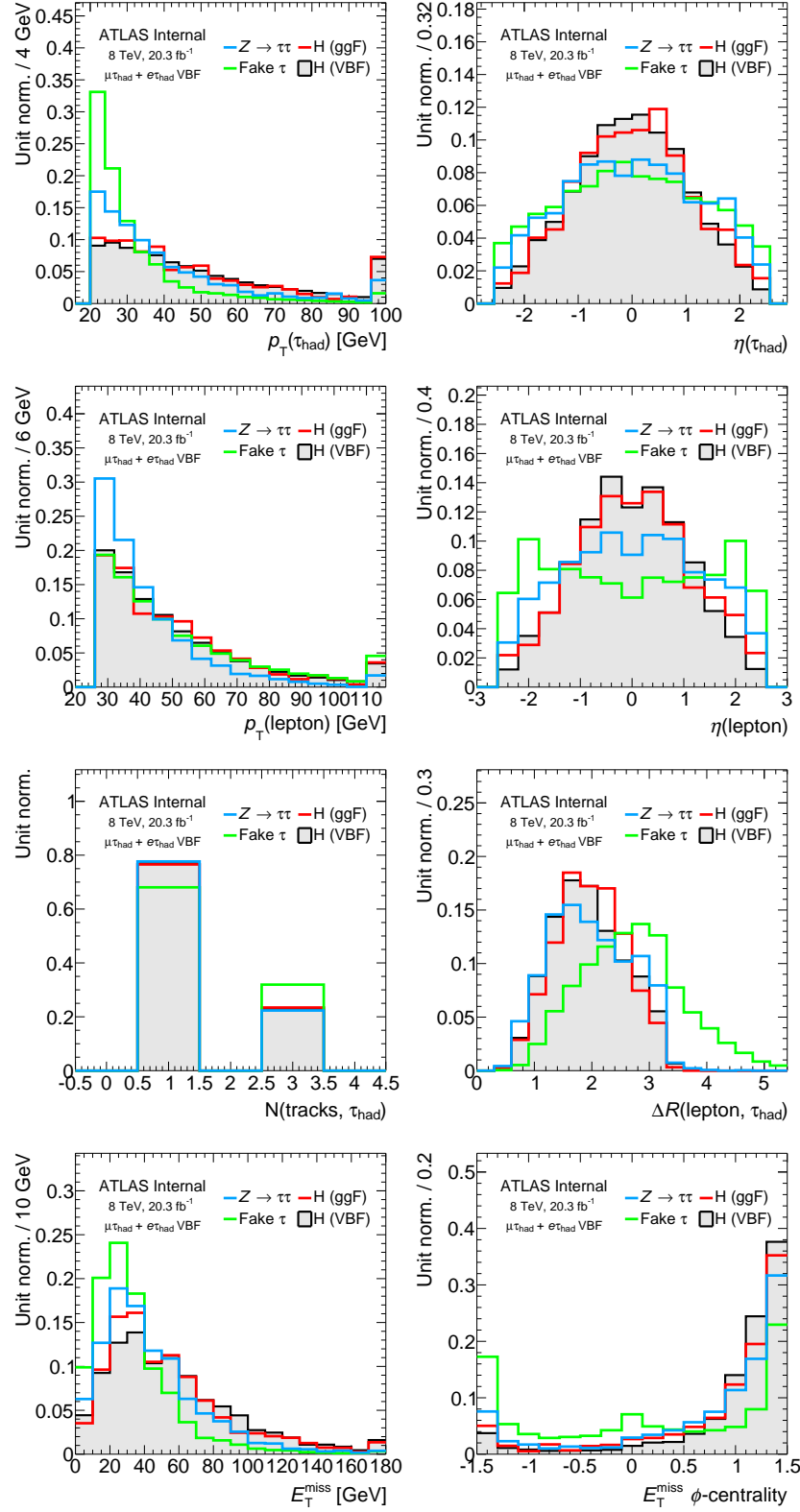


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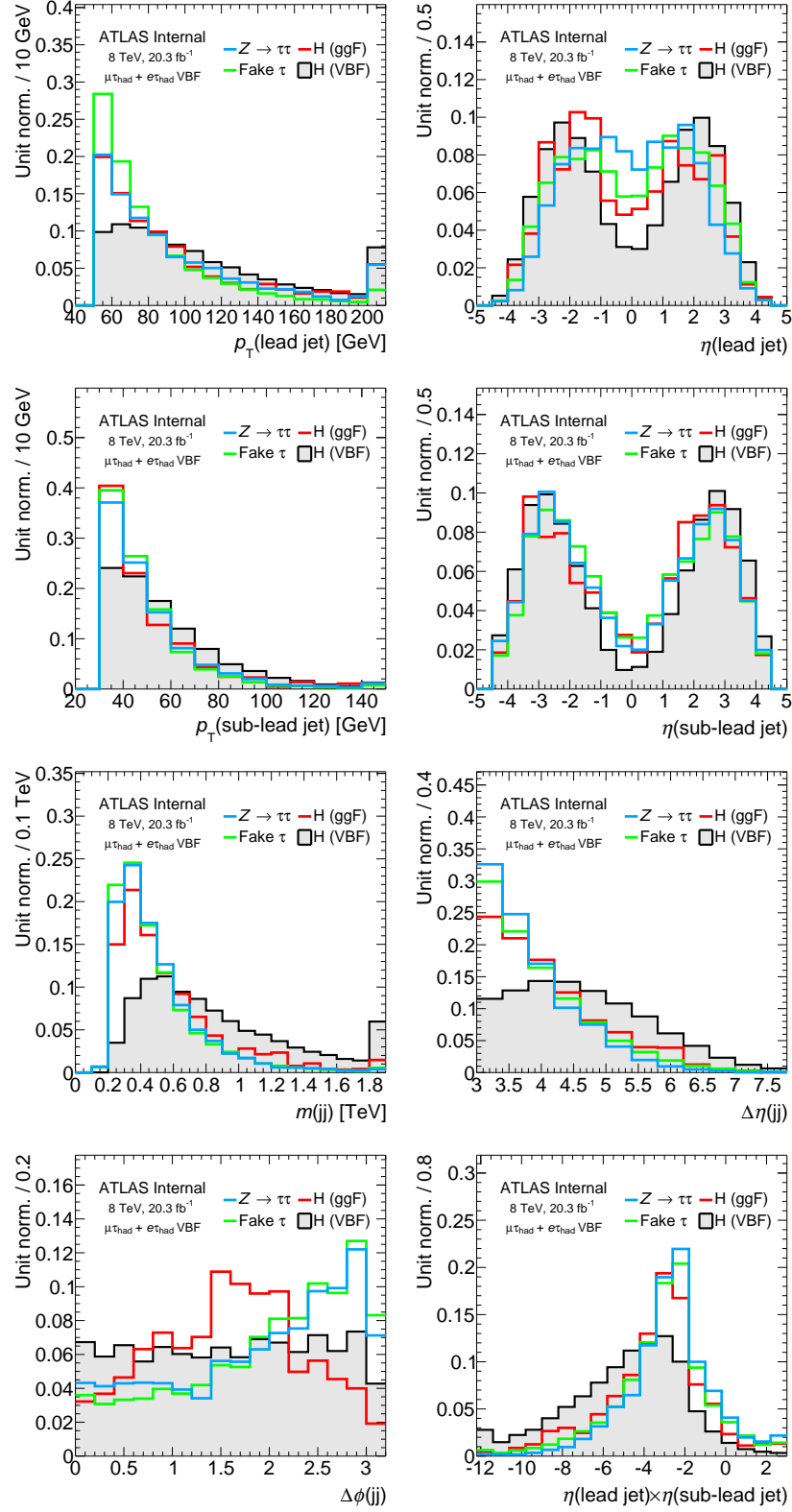


Figure 2.6: Variables.

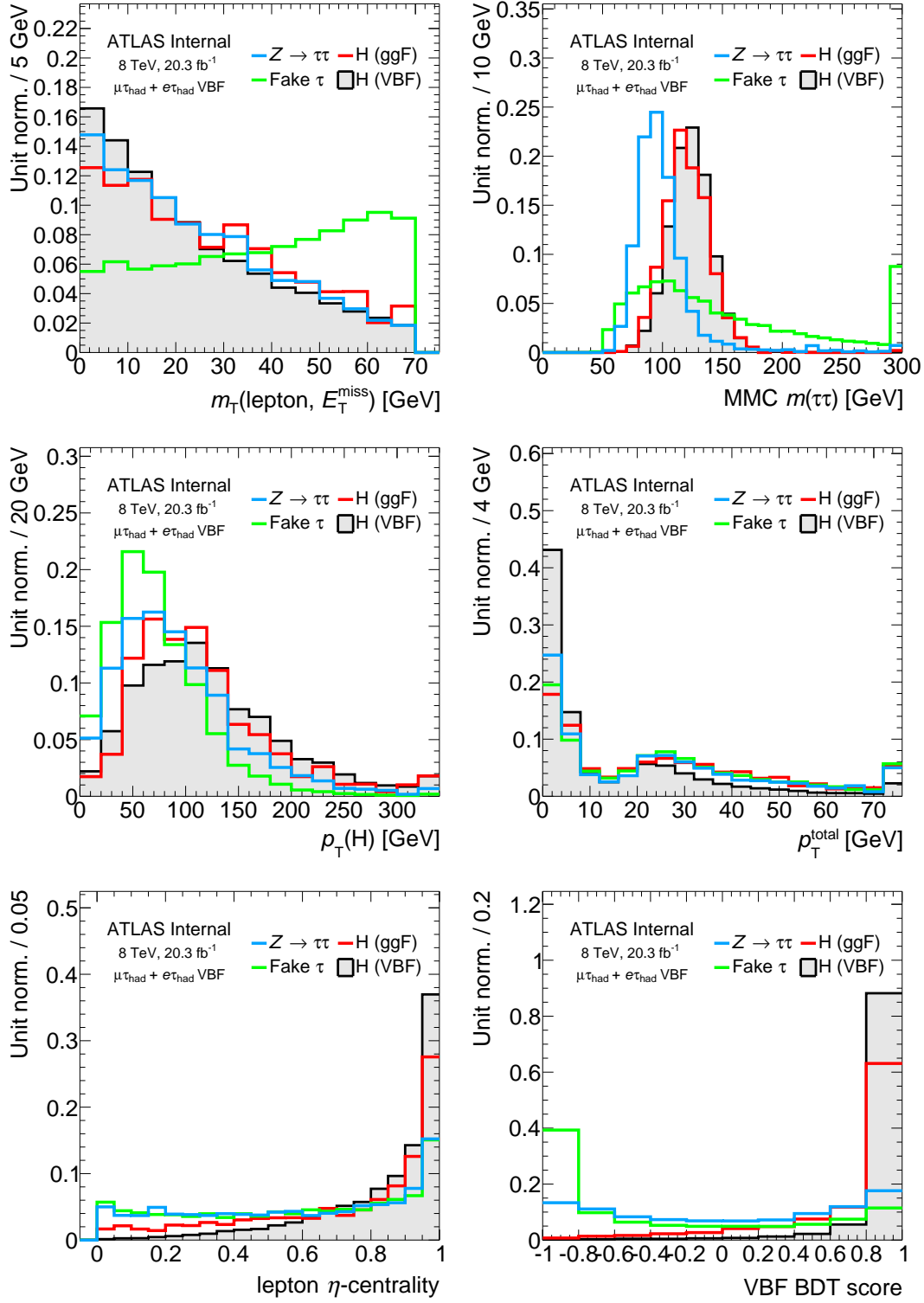


Figure 2.7: Variables.

Bibliography

- ⁹⁷ [1] ATLAS Collaboration, *ATLAS detector and physics performance: Technical Design Report*.
⁹⁸ CERN, Geneva, 1999. [1](#), [2.4](#)