Studies on varying the muon isolation

Despina Sampsonidou, Angela Burger

LAPP Annecy

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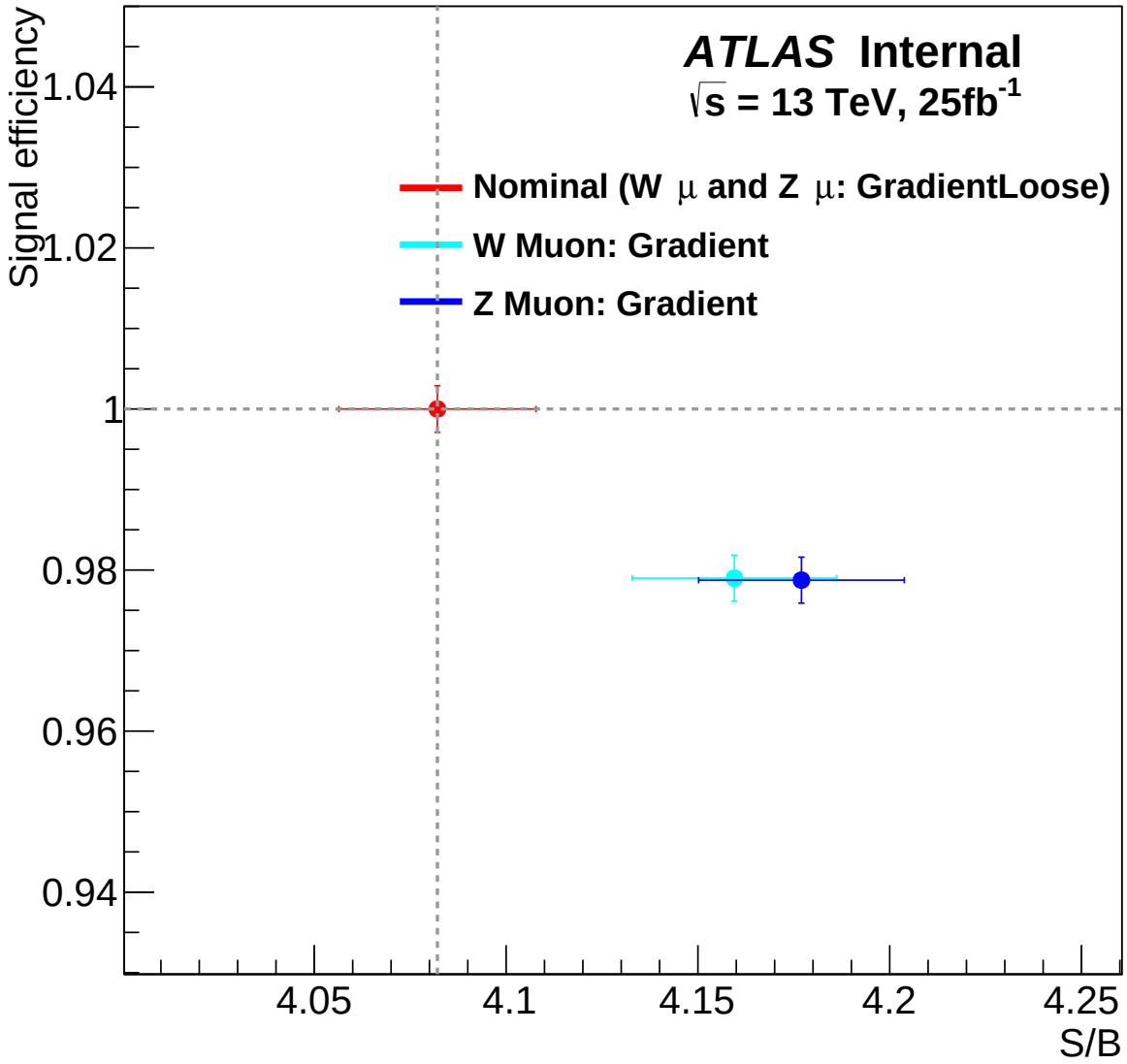
Introduction

- Vary muon isolation for W and Z muons separately
- Check whether estimators S/B or $\frac{S}{\sqrt{(S+B)}}$ improve with respect to the nominal selection when applying tighter isolation
- Also check the signal efficiency (defined in the following as $\frac{\text{Number of signal events, modified iso}}{\text{Number of signal events, nominal selection}}$)
- Nominal muon isolation: GradientLoose
- Tighten muon isolation to Gradient

Signal efficiency as a function of S/B



Signal efficiency as a function of $\frac{S}{\sqrt{(S+B)}}$