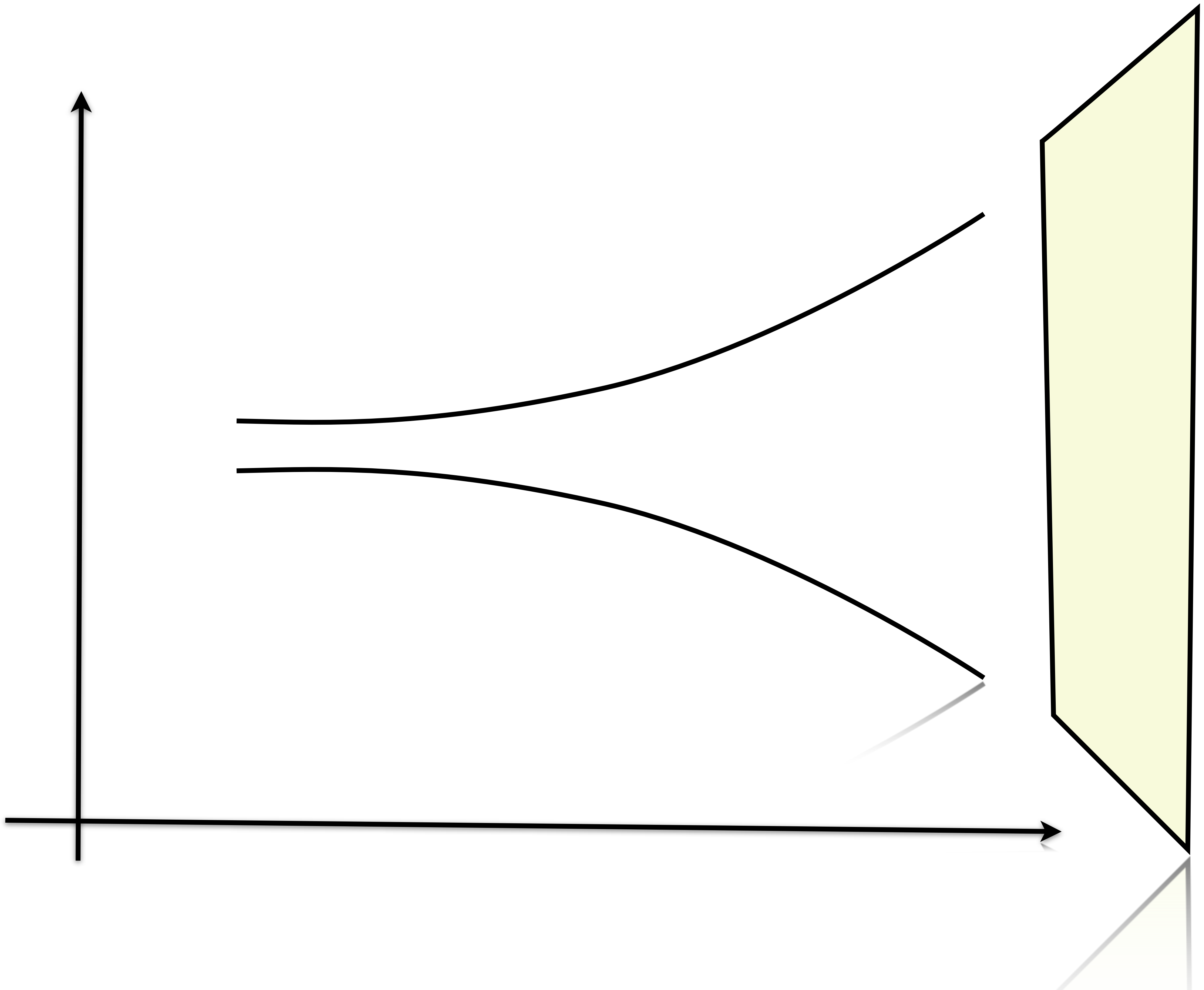
Peter Skands (QCD/Pheno)



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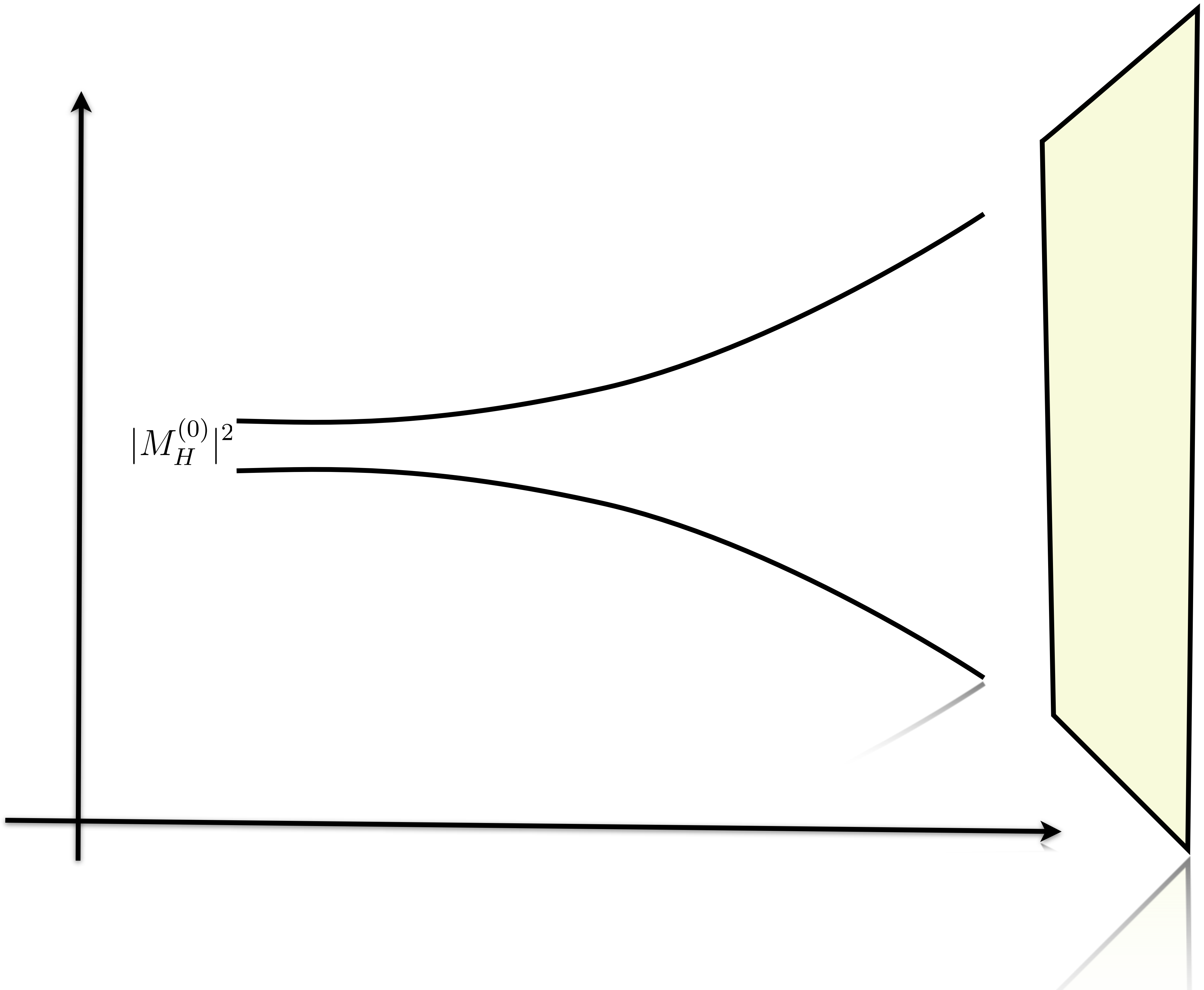

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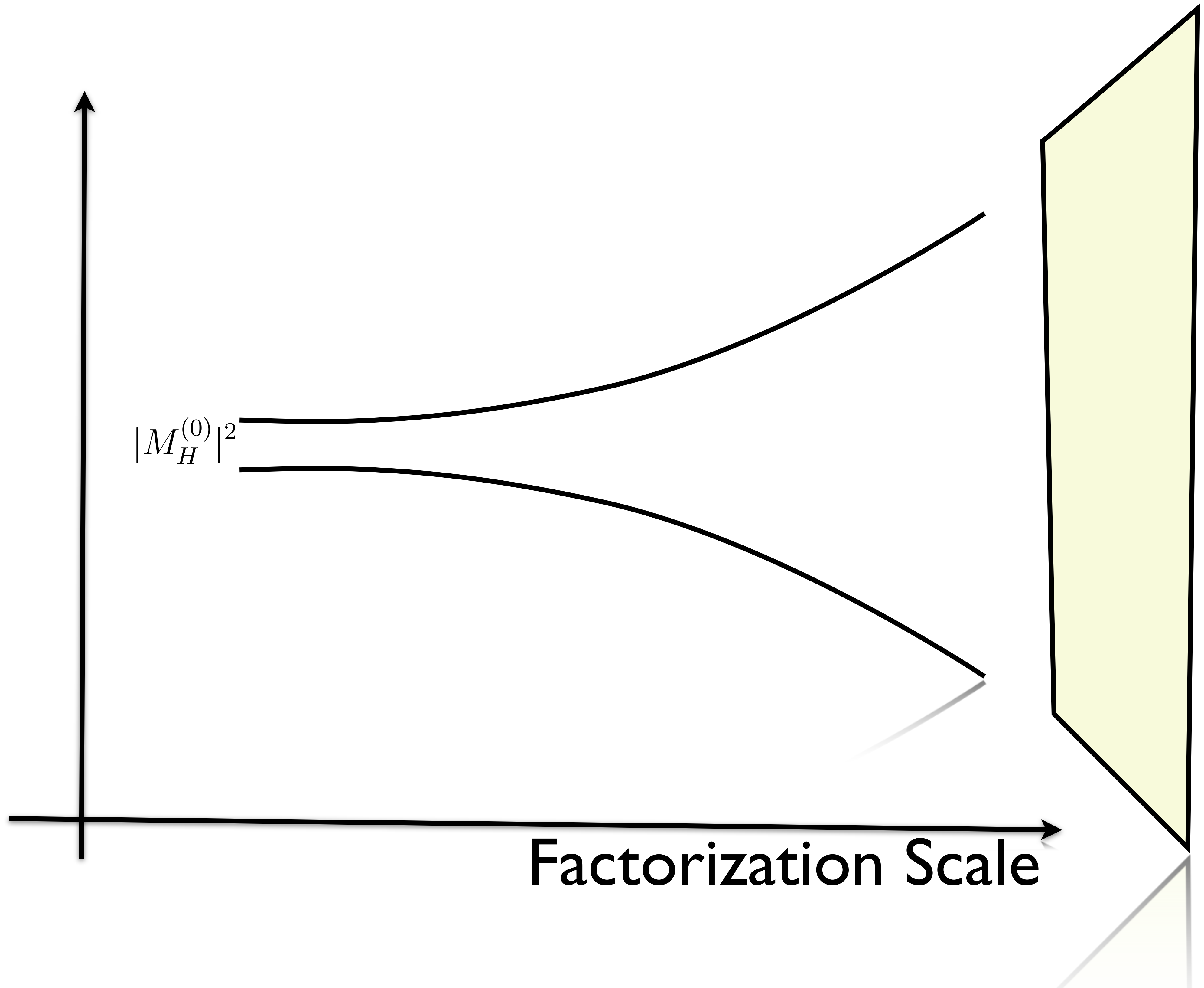
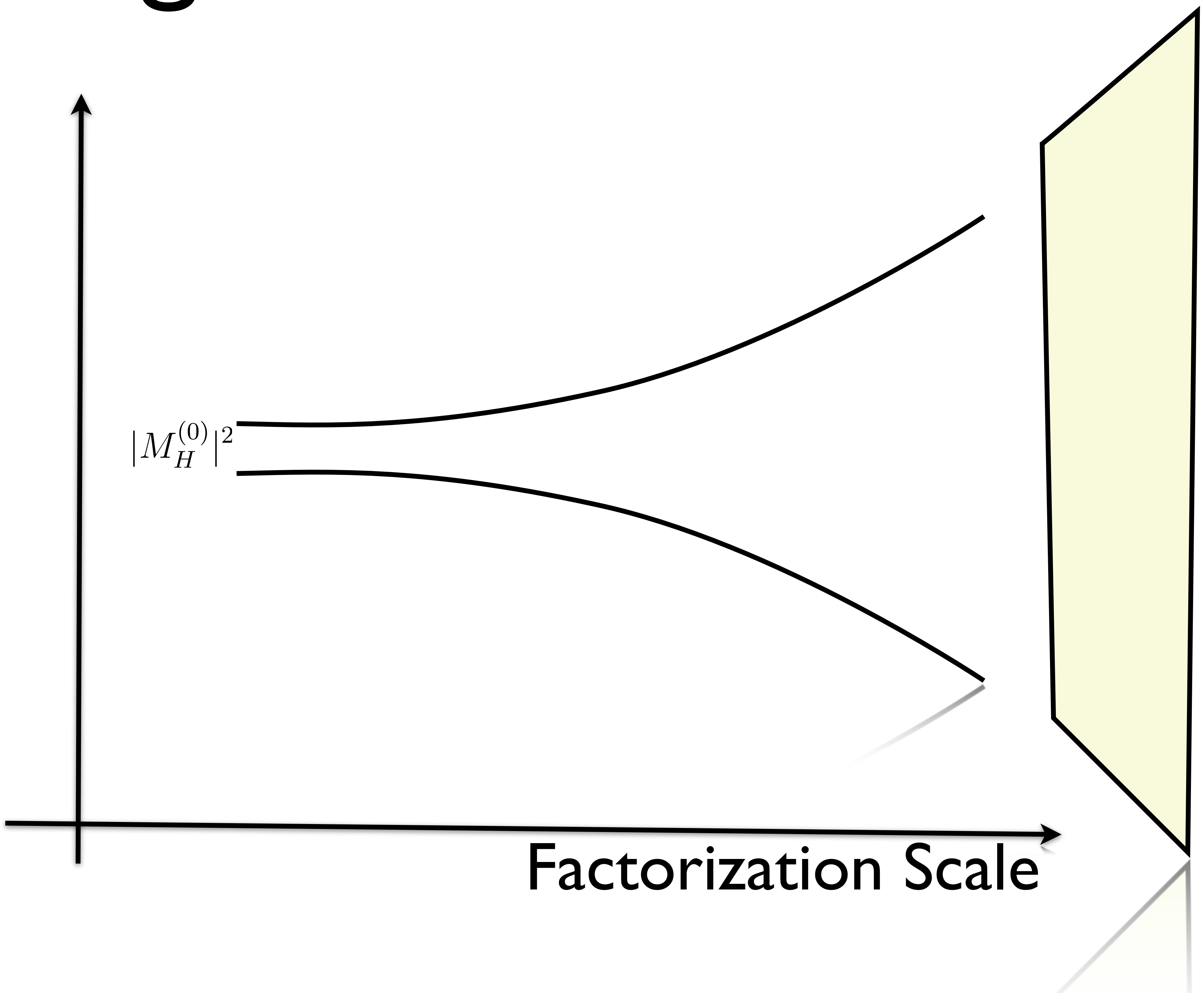


Higher-Order Corrections



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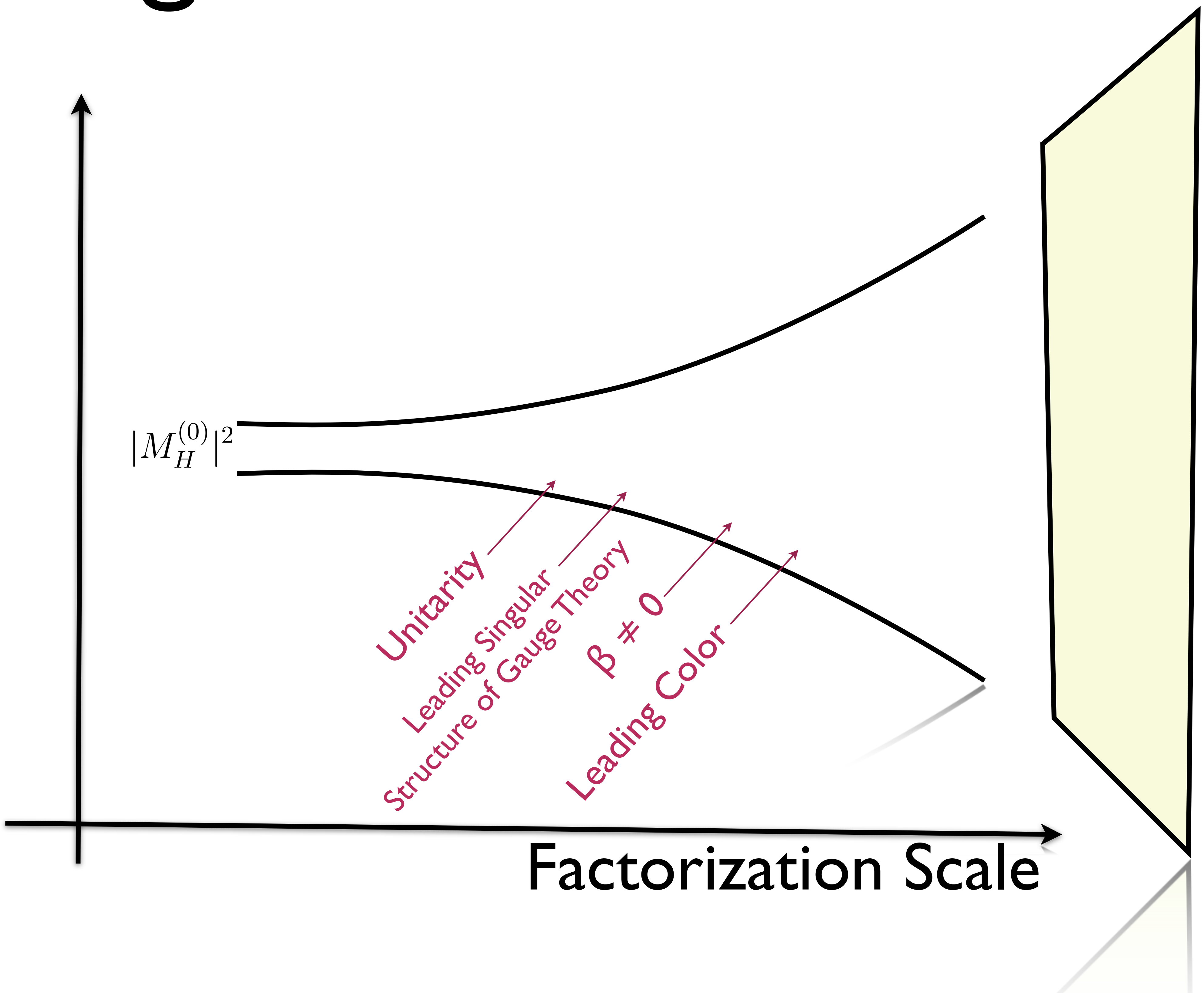

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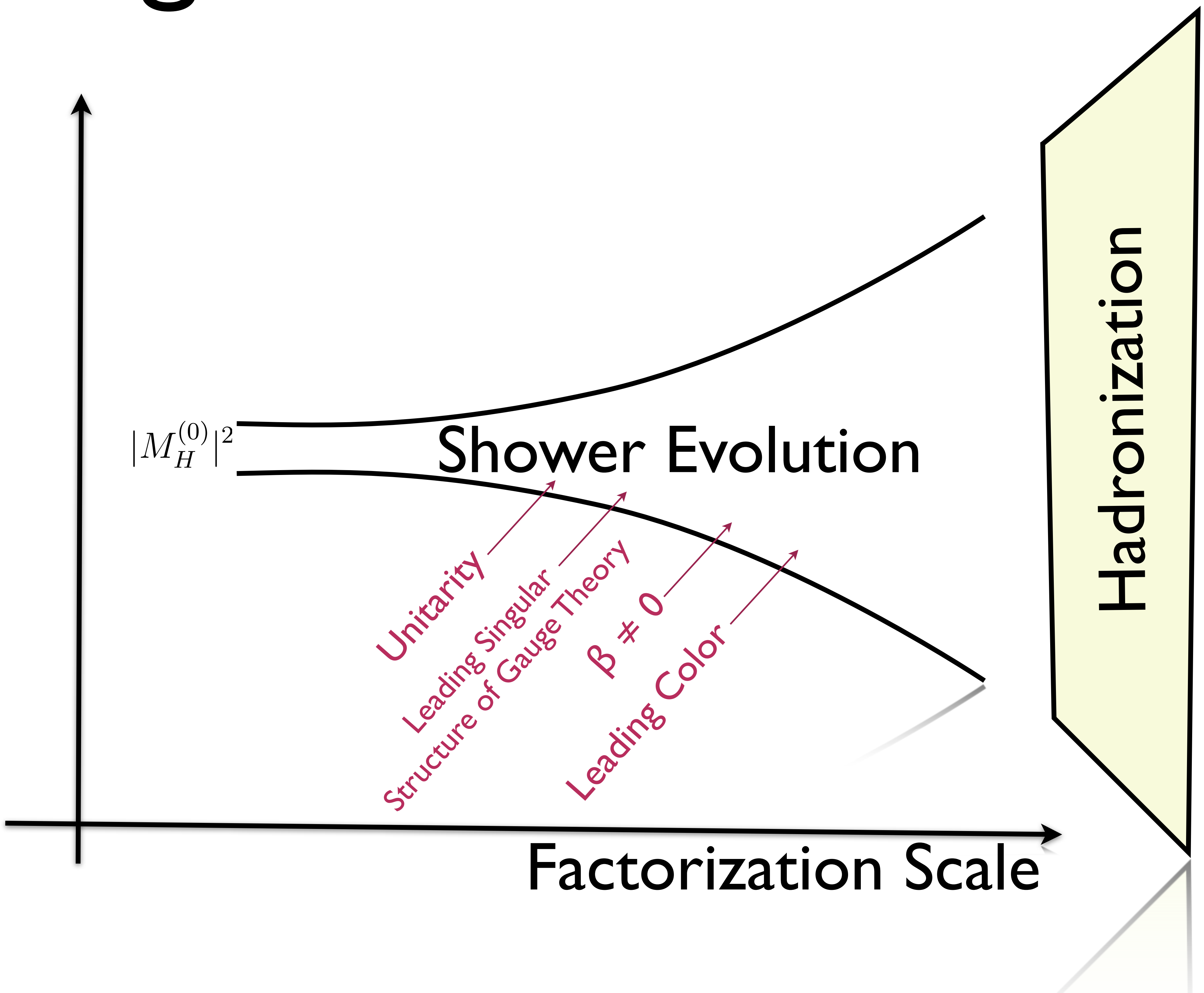

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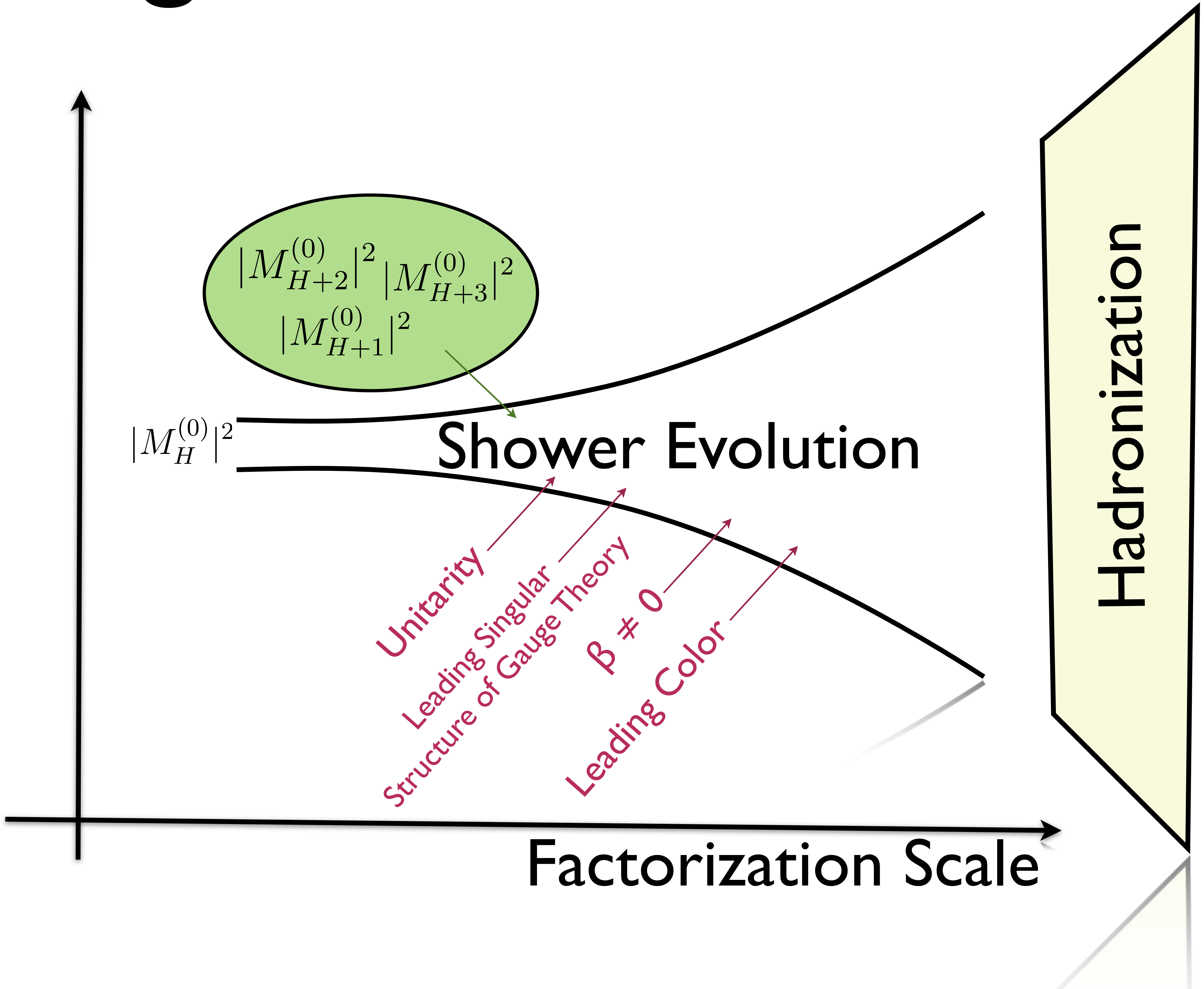

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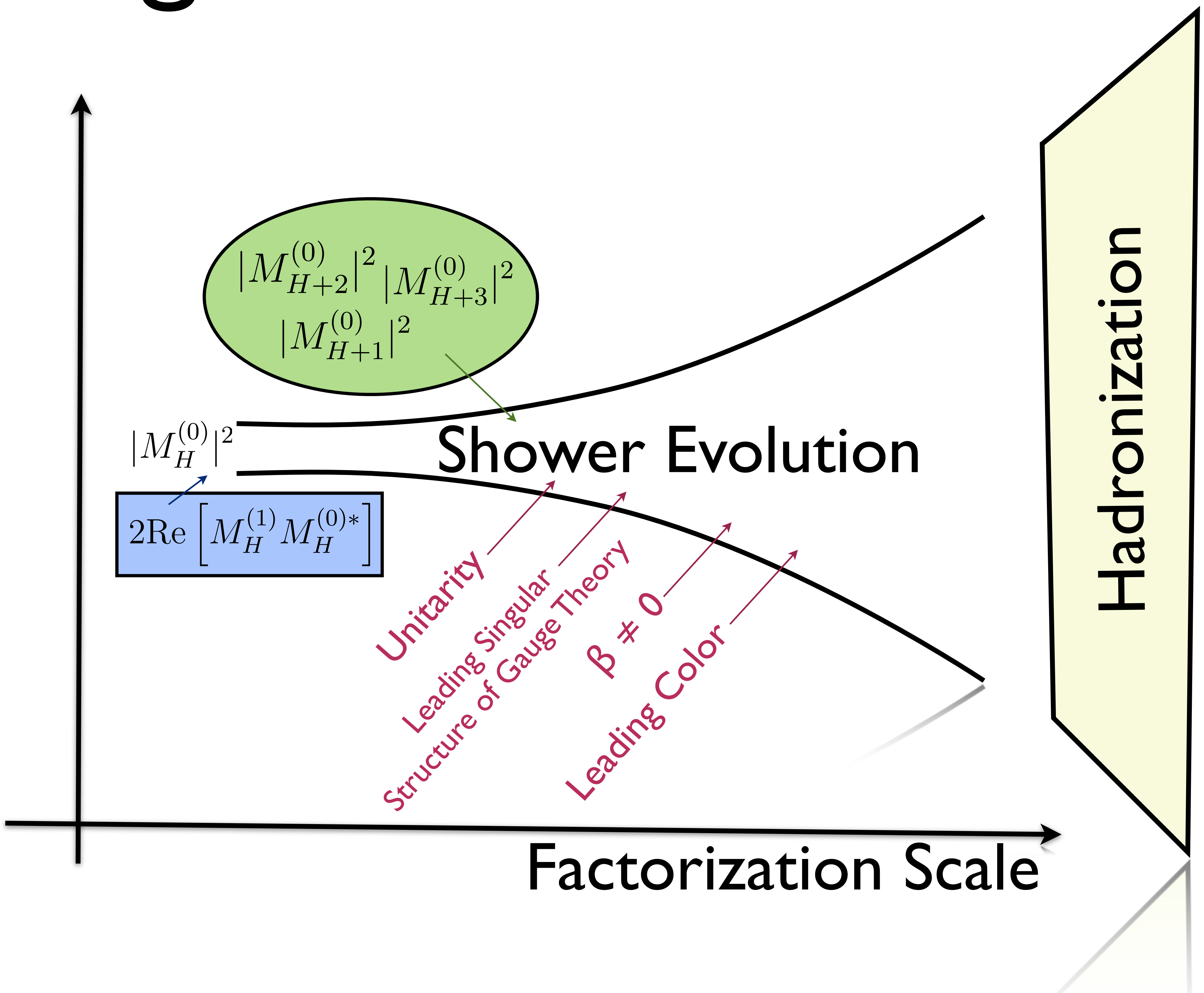

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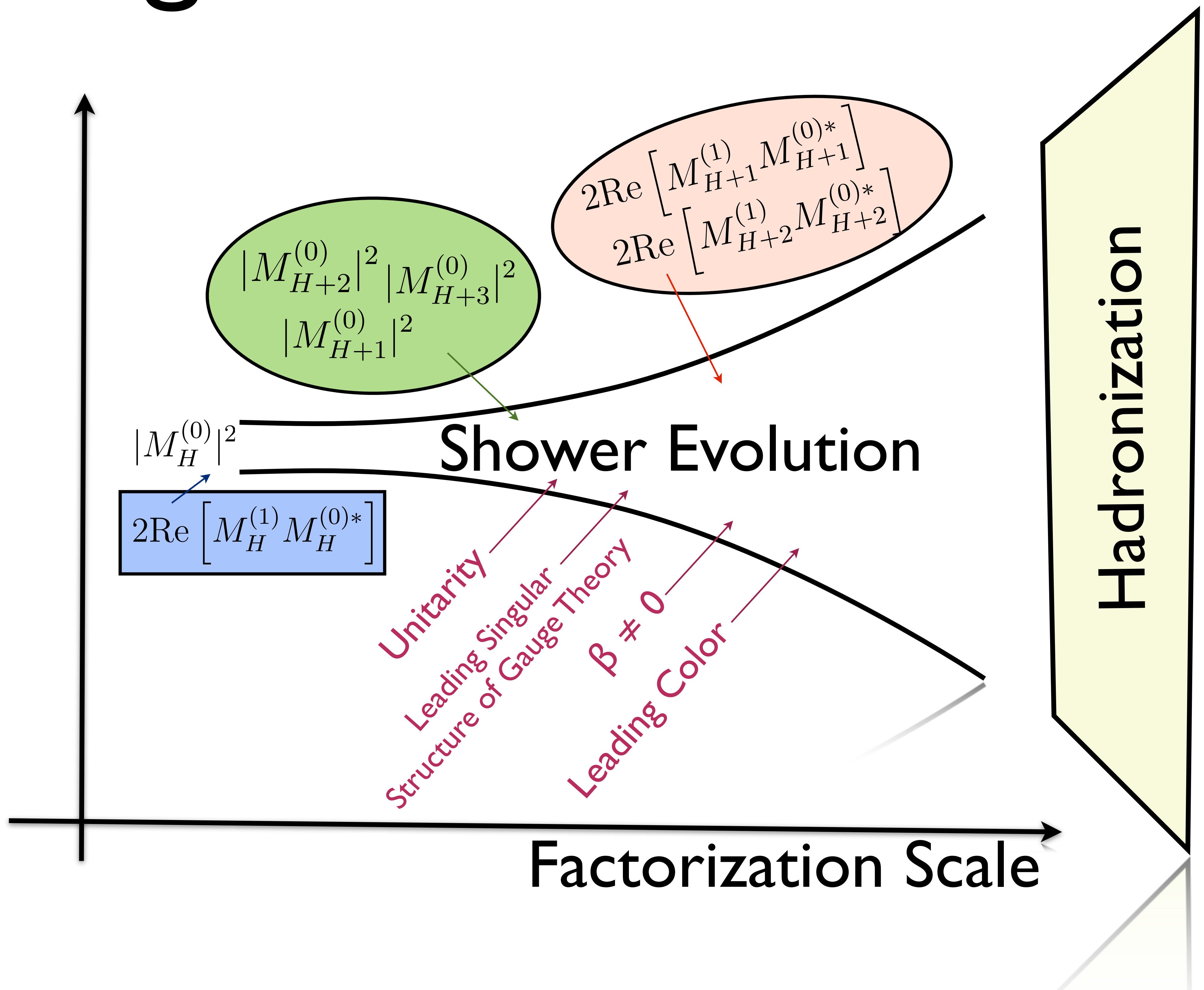

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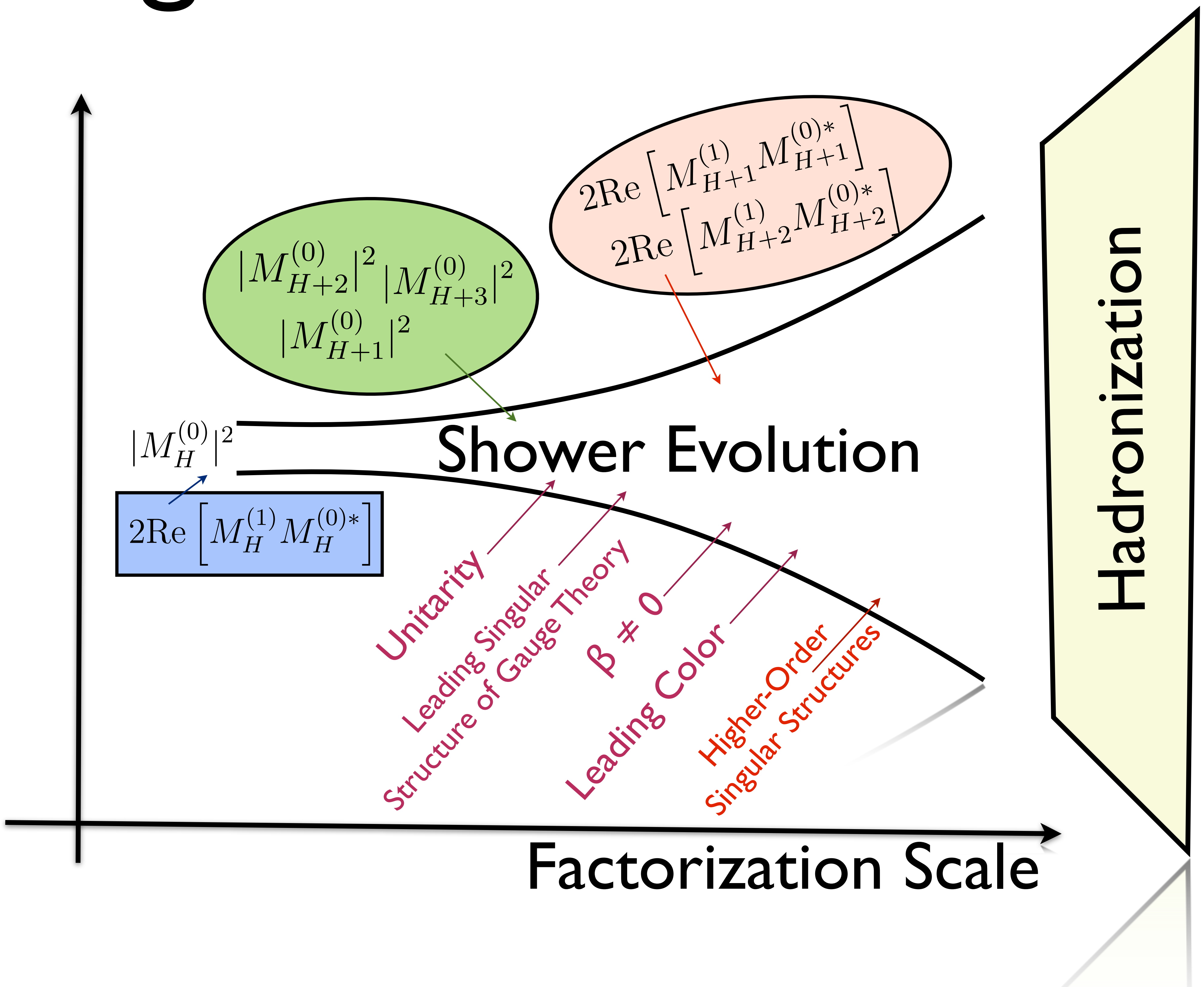

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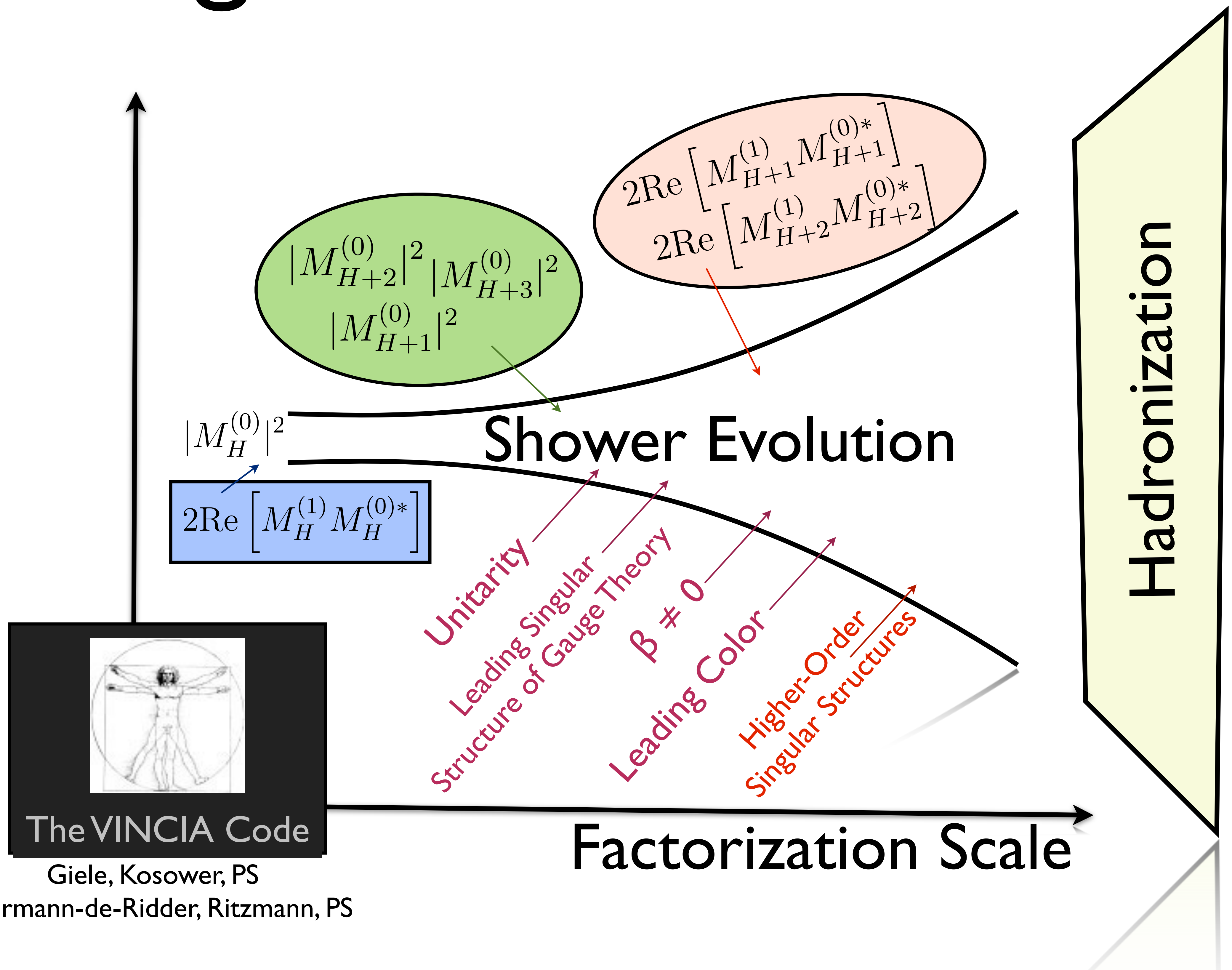

Giele, Kosower, PS

Gehrmann-de-Ridder, Ritzmann, PS

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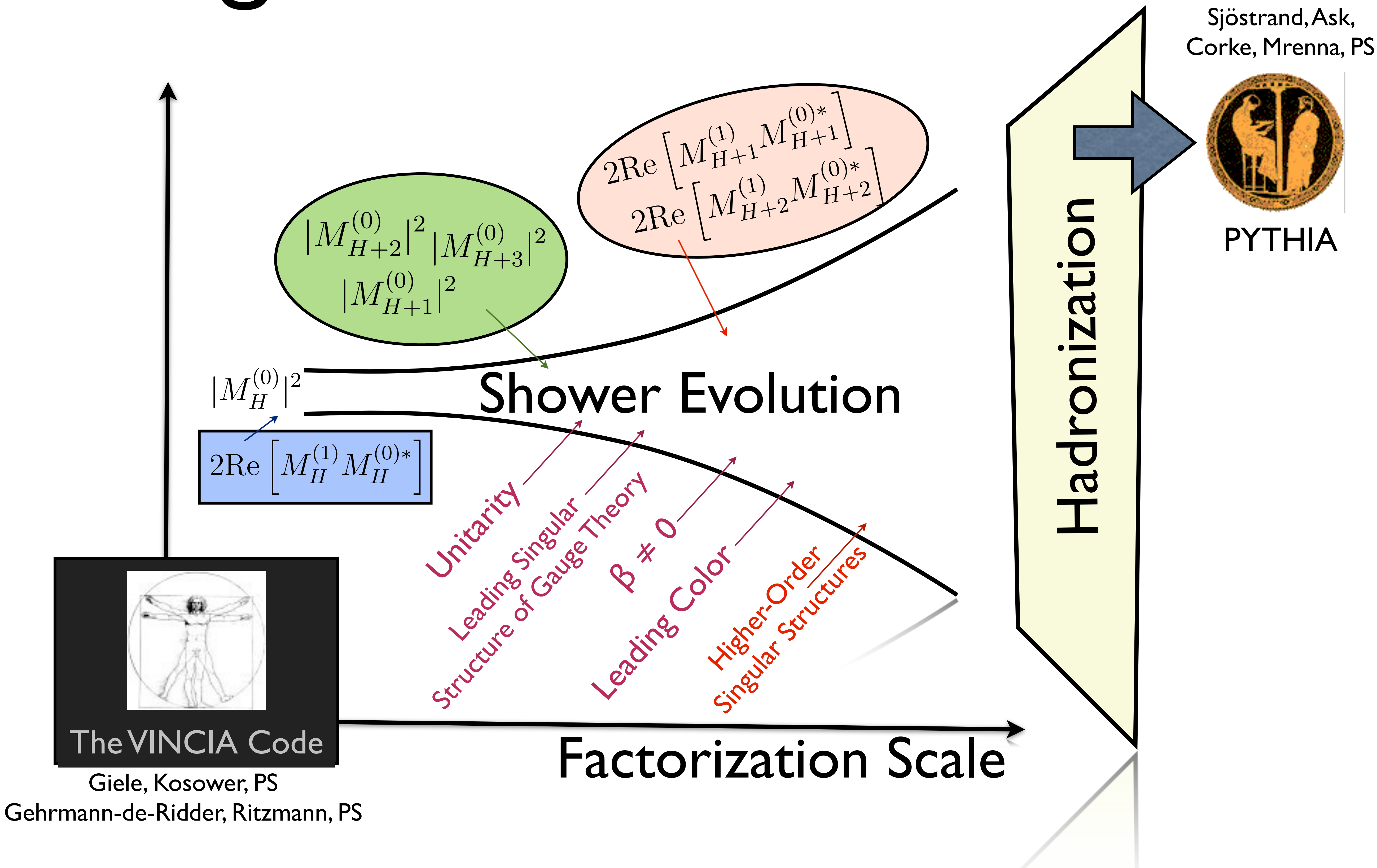

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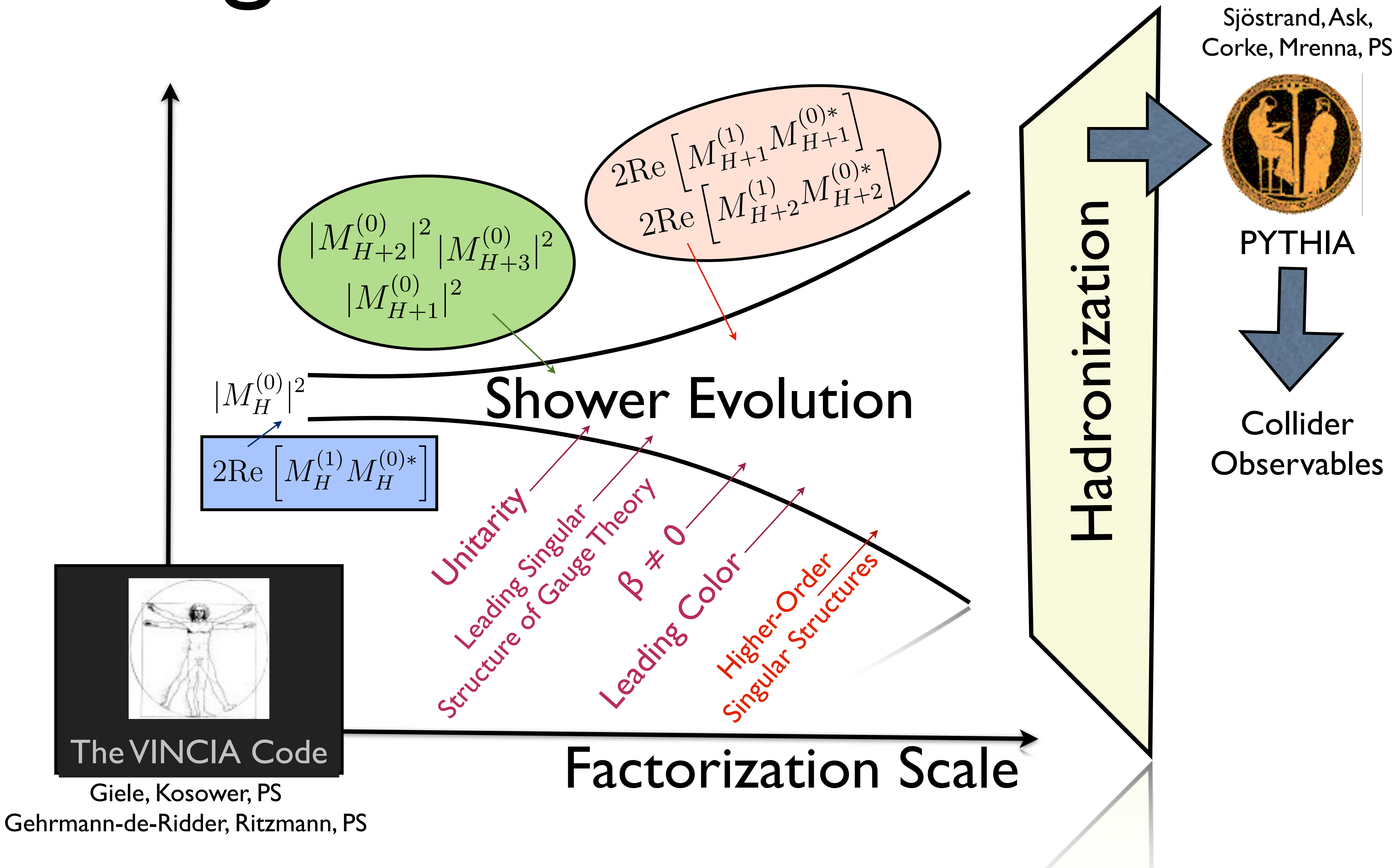

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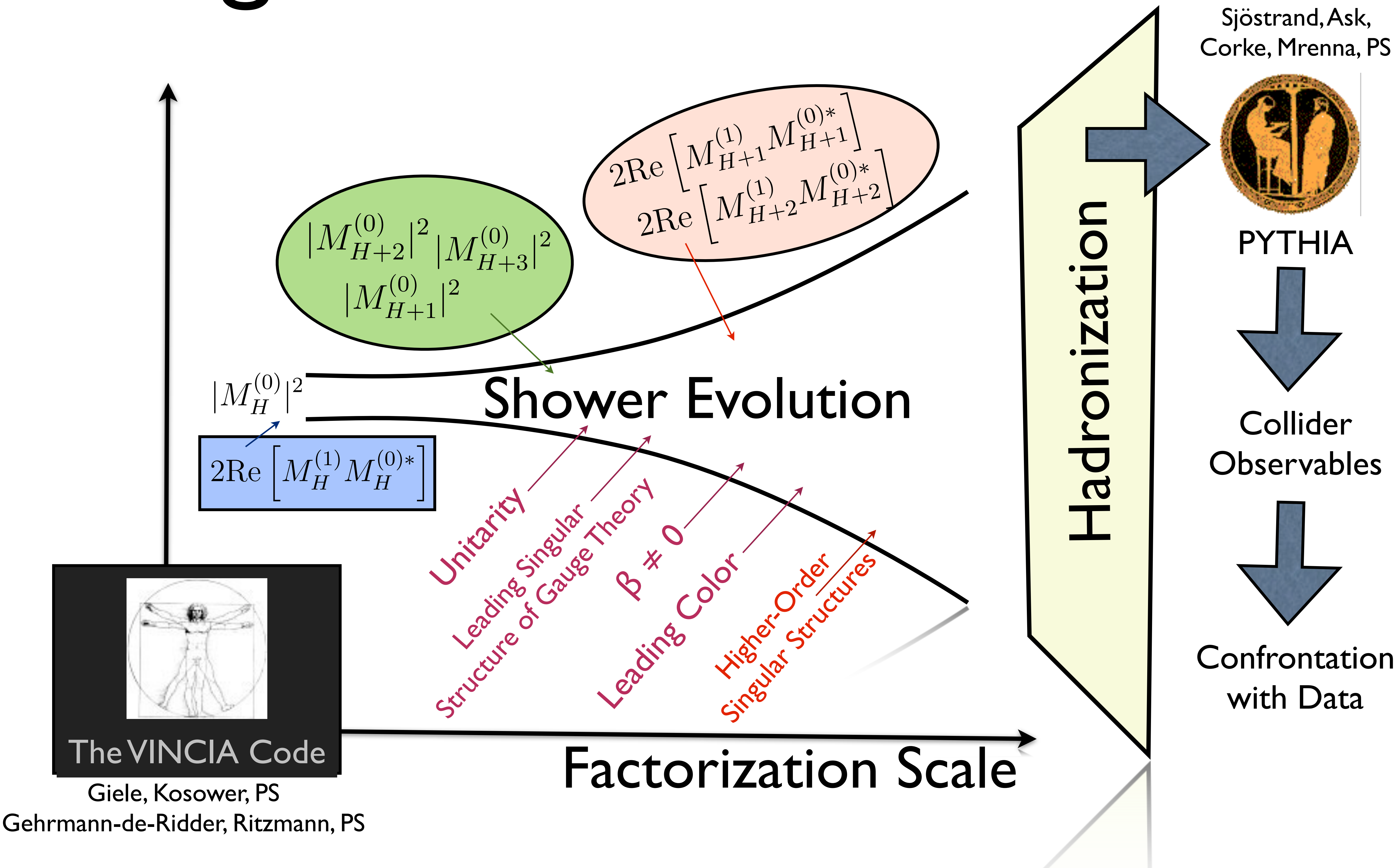

Peter Skands (QCD/Pheno)

Early LHC Data

CMS "Ridge"

Track multiplicities

p_T spectra

Identified Particles

Baryon Transport

Correlations

Central vs Forward

Collective Effects?

Color Correlations

Rapidity Gaps

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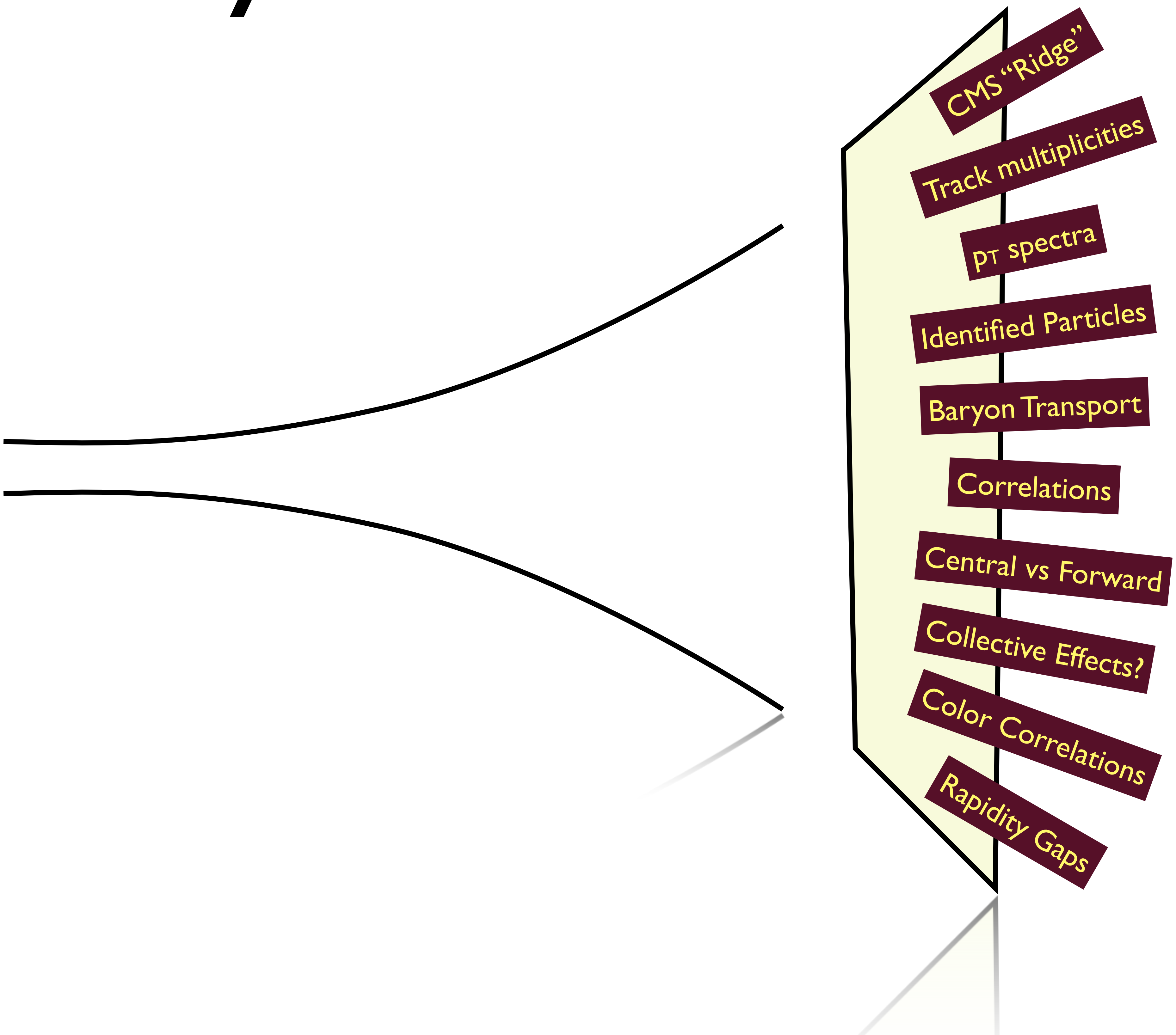

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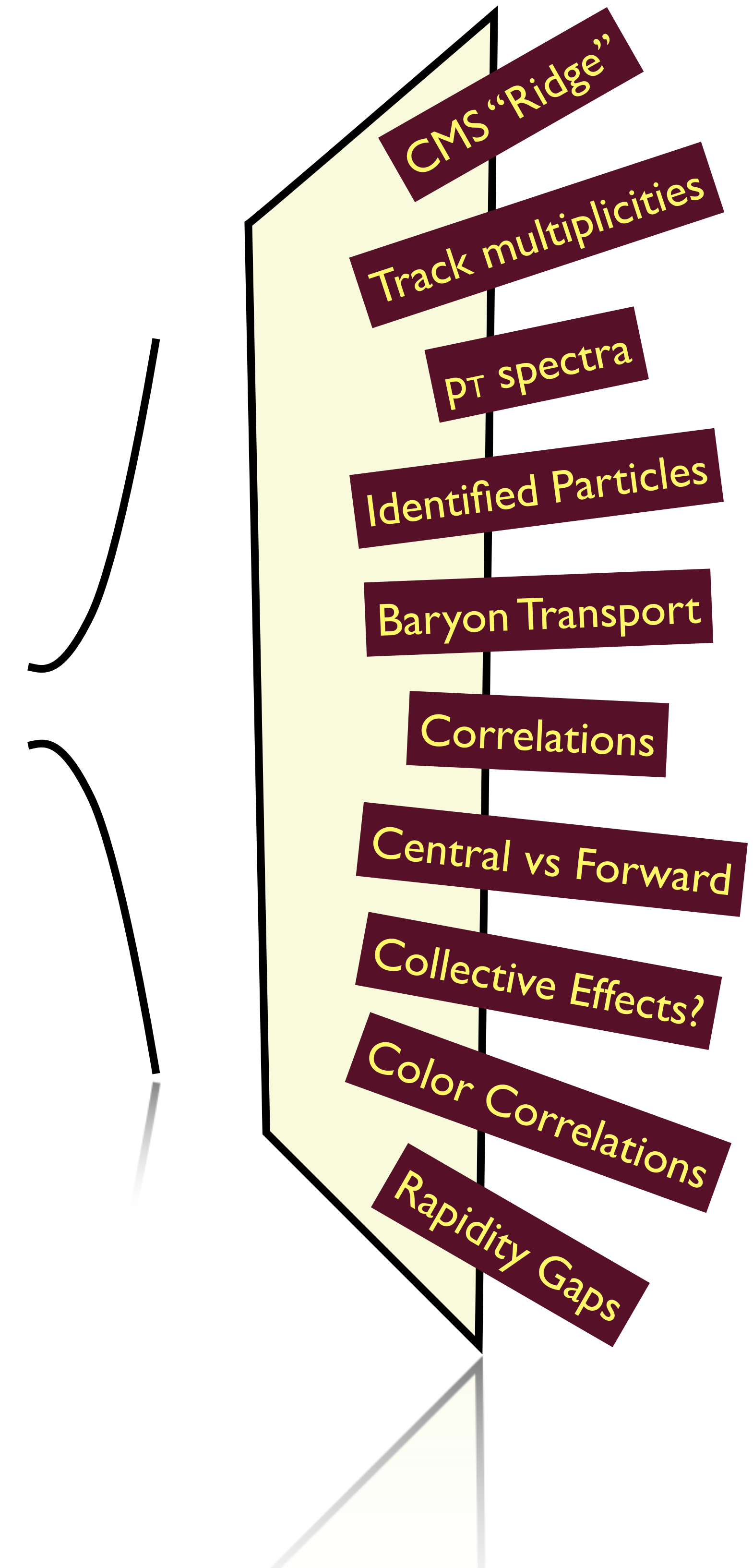

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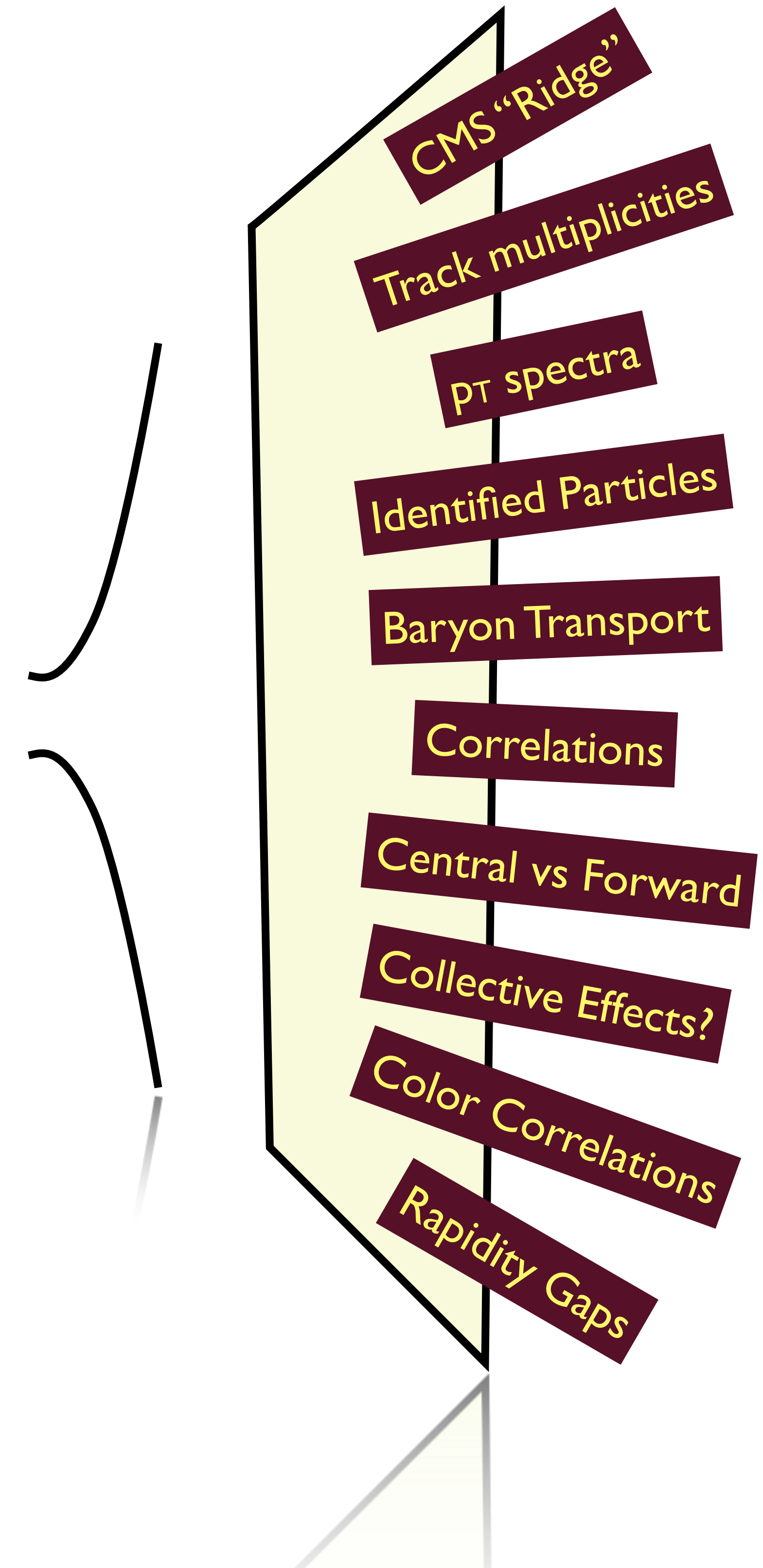
Early LHC Data

Minimum-Bias

~ All collisions with ≥ 1 track



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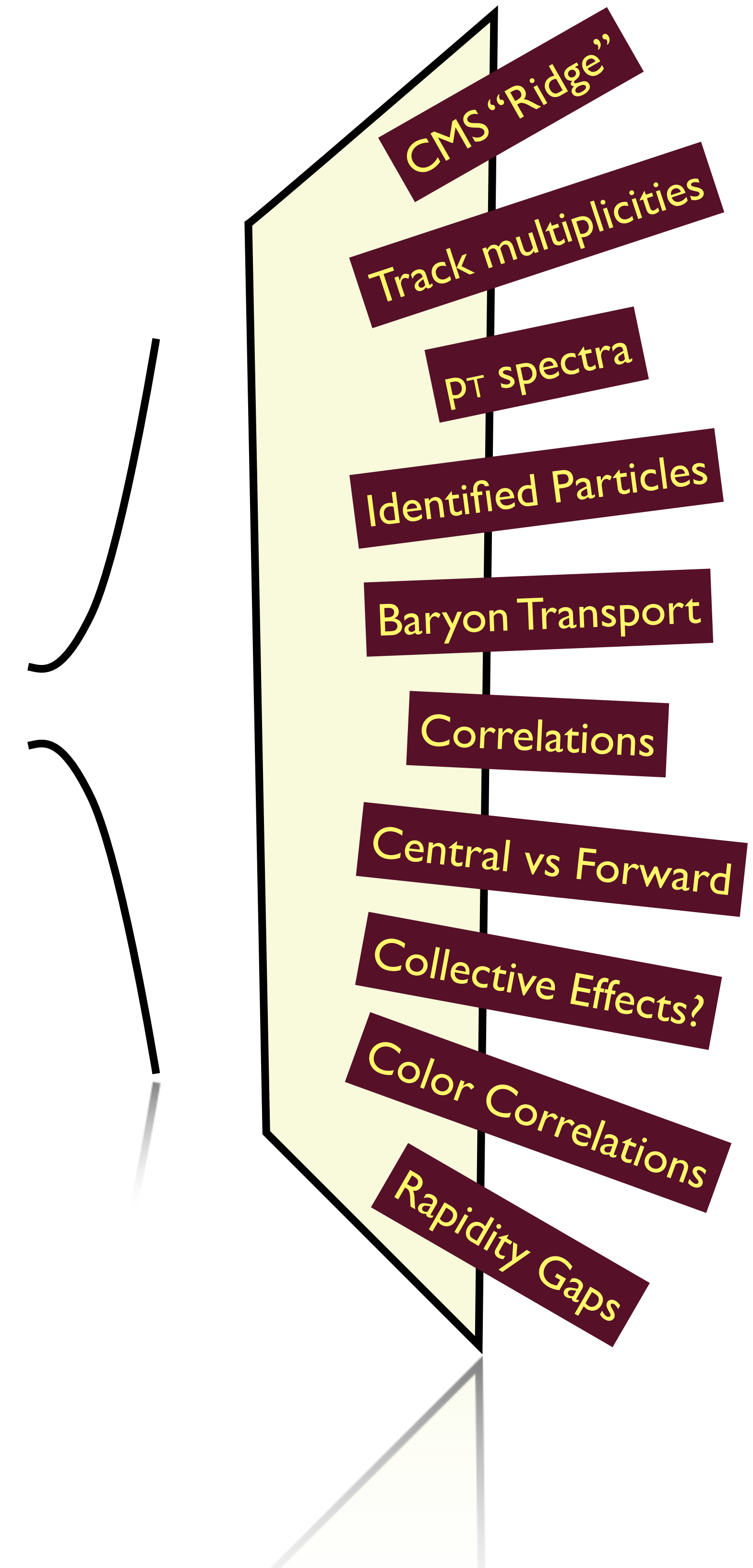
It's a simple question:

What does the *average* LHC collision look like?



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NO HARD SCALE

Extremely sensitive to IR effects

→ Excellent LAB for studying IR effects

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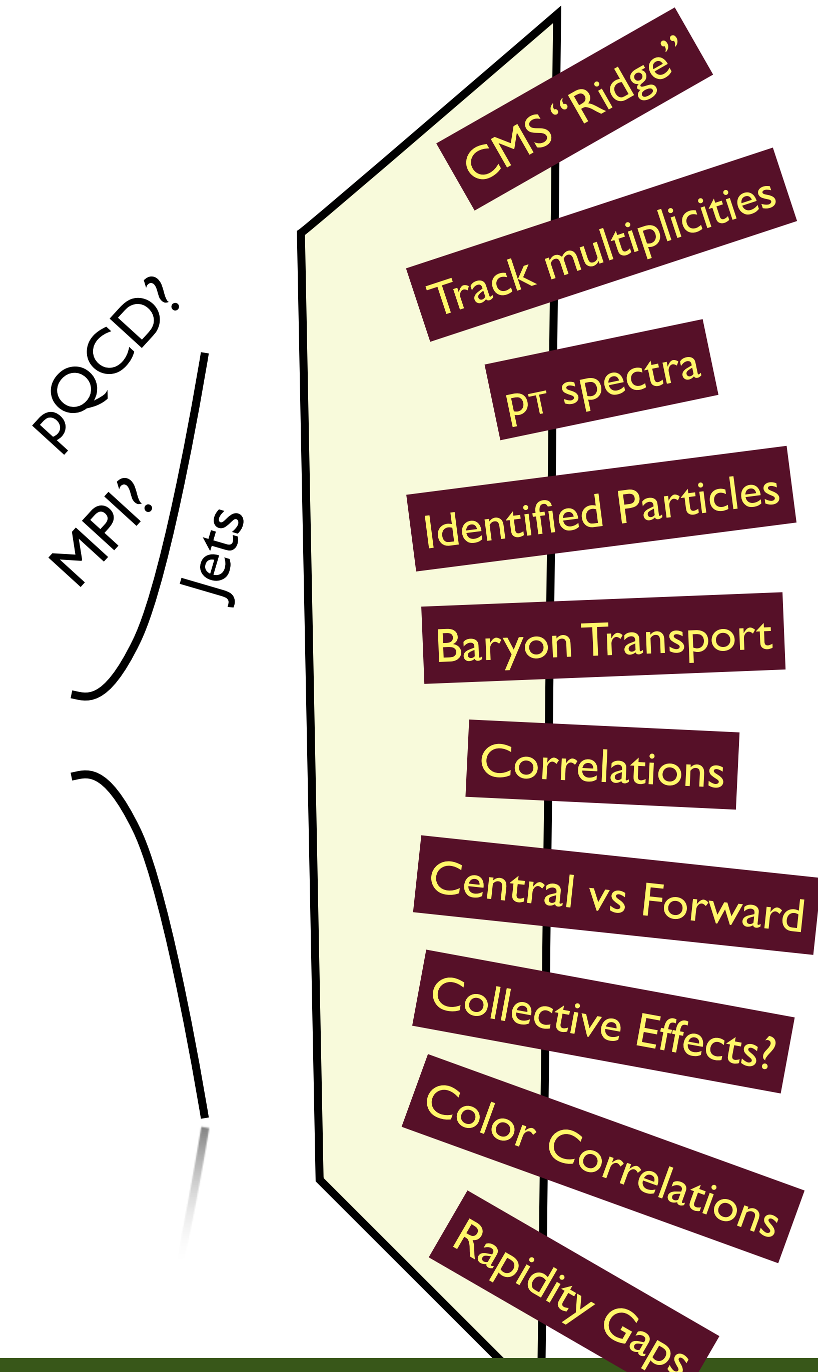

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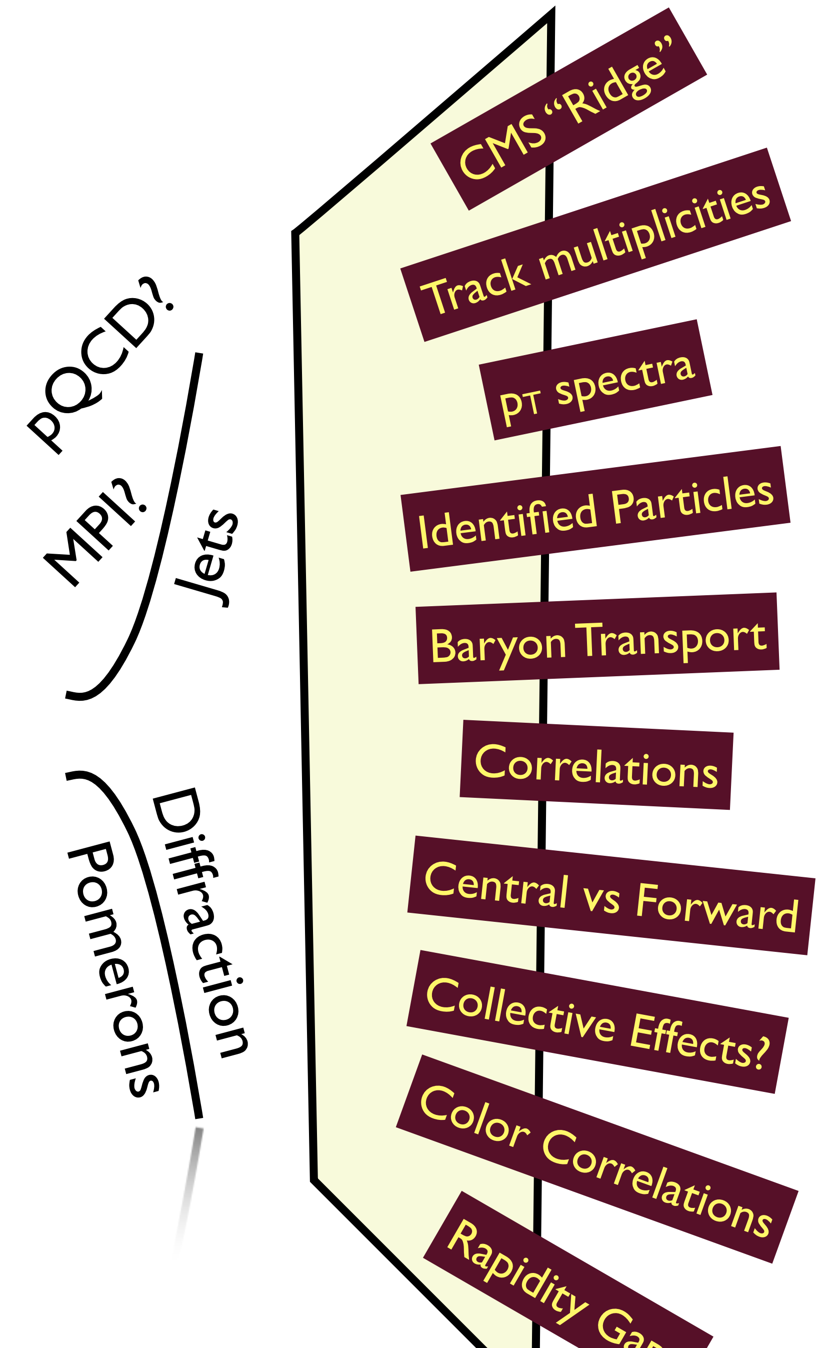

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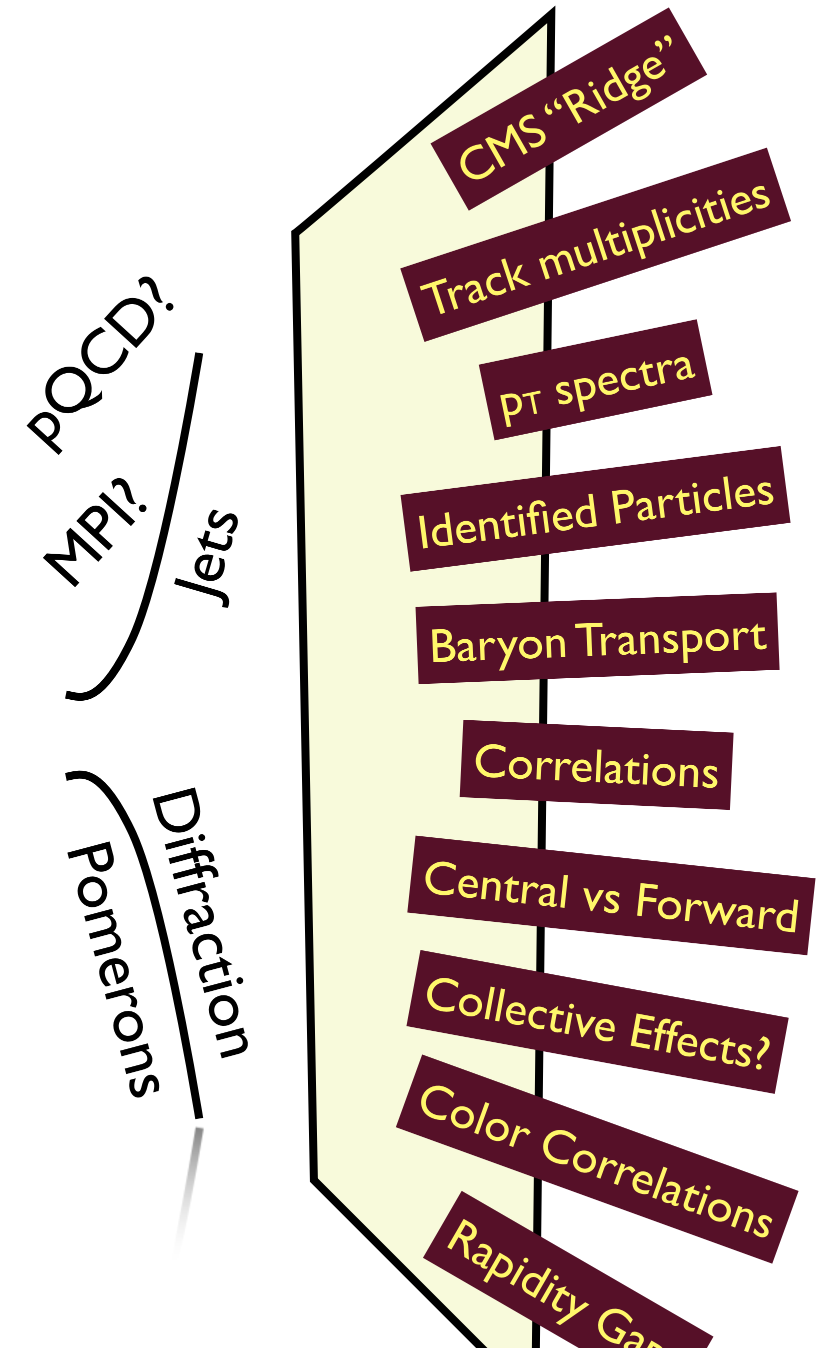

~ ∞ statistics + tails → MB/UE and MB/pQCD

+ universality → can constrain models and re-use for hard processes