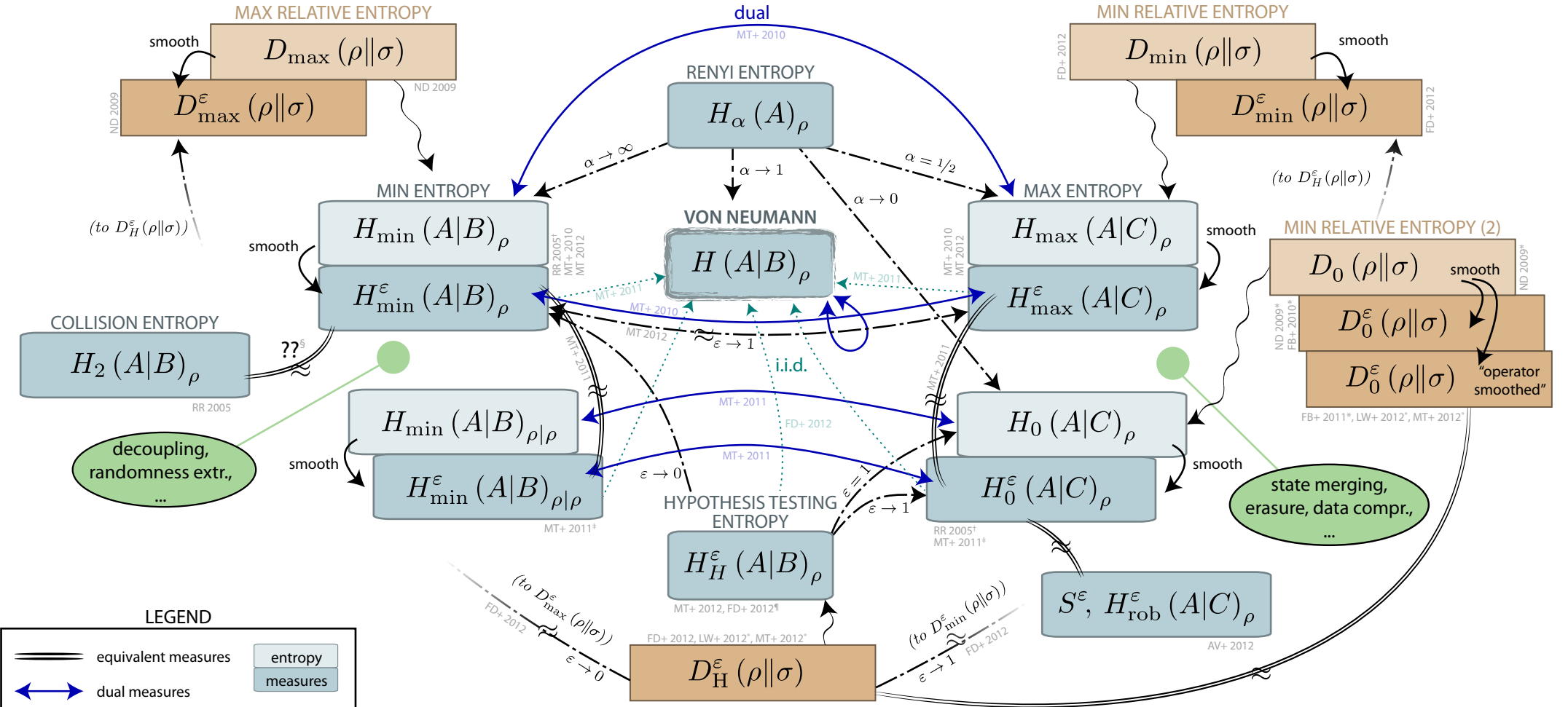
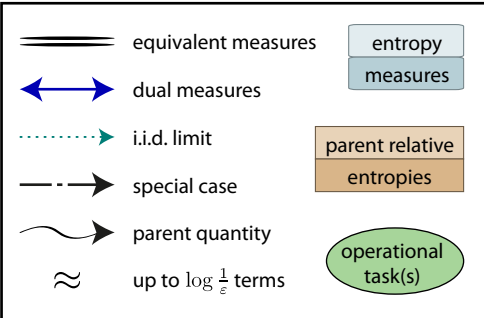


WELCOME TO THE ENTROPY ZOO

... as seen by Philippe Faist, ETHZ



LEGEND



STANDARD CONSTRUCTIONS

$$H_{\star}(A|B)_{\rho|\sigma} = -D_{\star}(\rho_{AB}||\mathbb{1}_A \otimes \sigma_B)$$

$$H_{\star}(A|B)_{\rho} = \max_{\sigma_B} H_{\star}(A|B)_{\rho|\sigma}$$

$$H_{\star}^{\epsilon}(A|B)_{\rho} = \max_{\hat{\rho} \approx \rho} \min H_{\star}(A|B)_{\hat{\rho}}$$

duality $H_{\star}(A|B) = -H_{\star}(A|C)$ for pure ρ_{ABC}

HYPOTHESIS TESTING RELATIVE ENTROPY

[†]Denotes H_0 as H_{\max} and uses trace distance smoothing
[‡]Termed there "alternative min/max entropy"
^{*}Termed there "min-relative entropy" and denoted by D_{\min}
[§]Not sure. Inequality at least I think. Ask Frédéric Dupuis.
[¶]Called $D_{H_1}^{\epsilon}$, $\frac{1}{2}$ normalization and ϵ parameter meaning vary
^{¶¶}Defined there using the marginal of ρ instead of the optimization on σ .

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