Metric Tensor Properties: Positive Definite, Consistent, and Curved
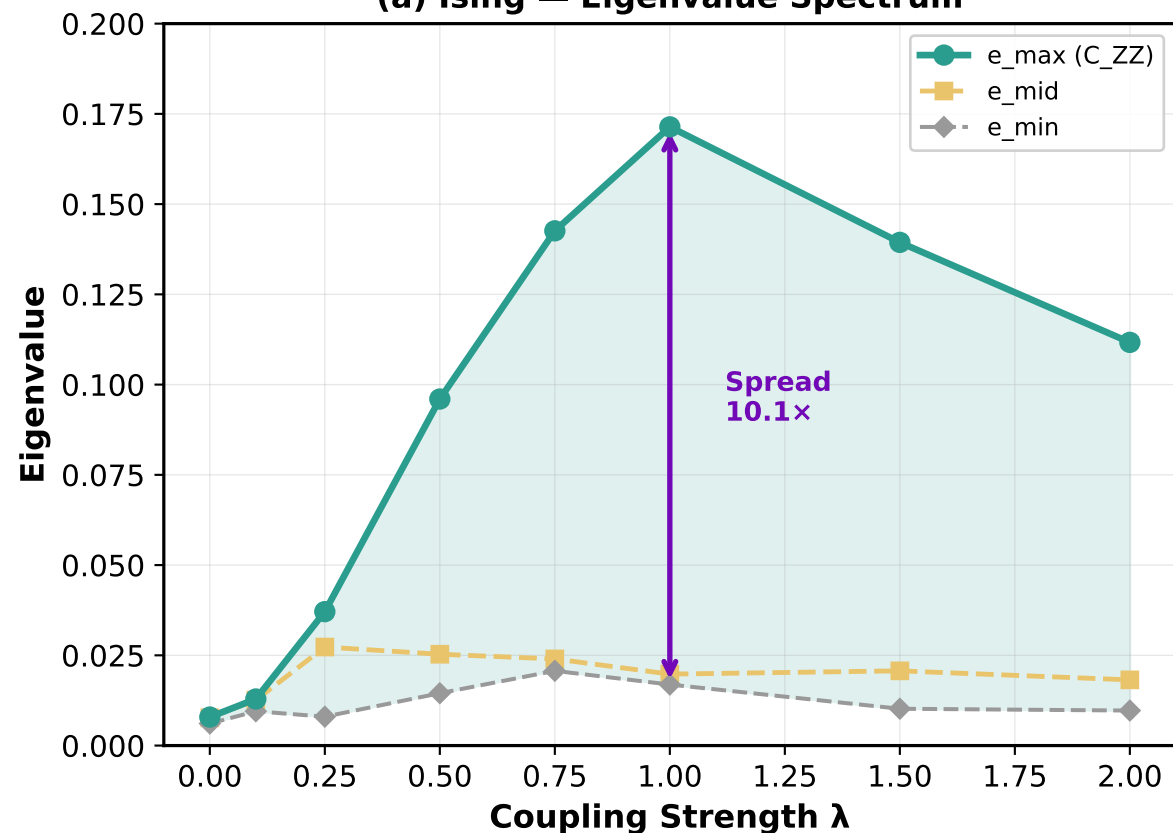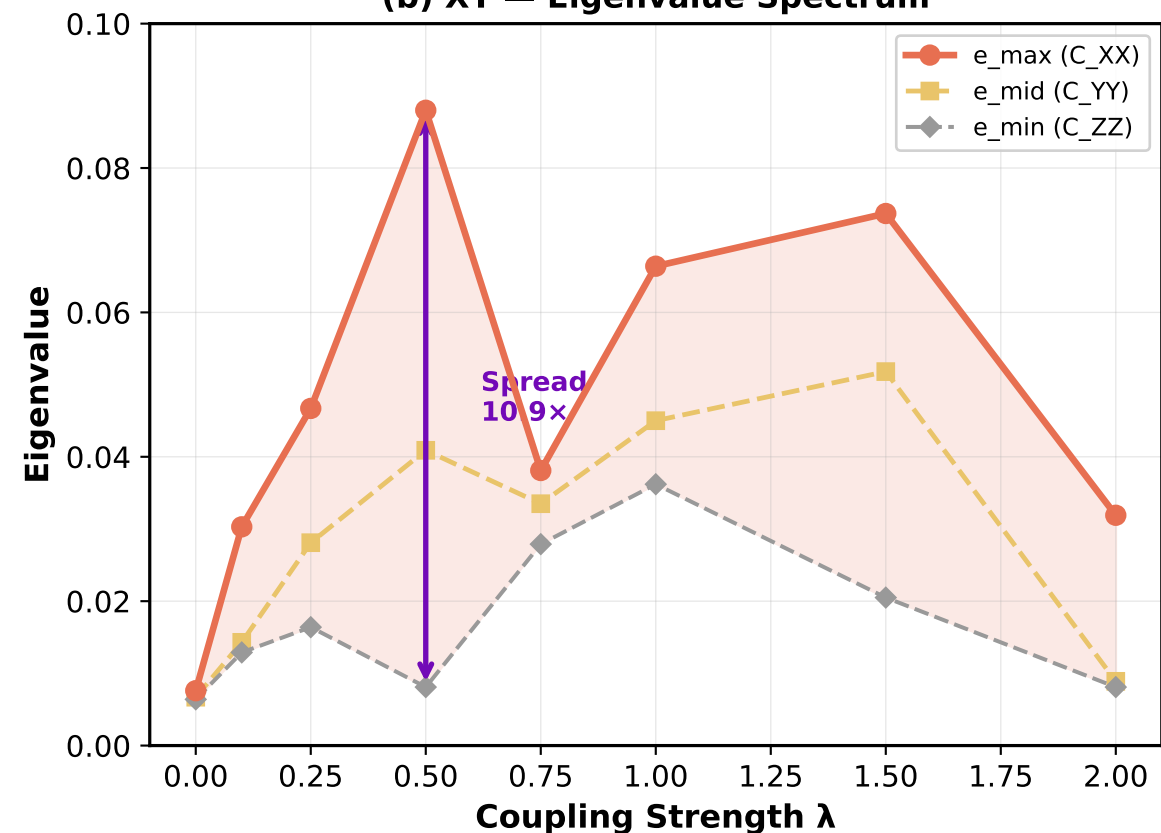## Andrew Thurlow · 528 Labs · IBM Torino
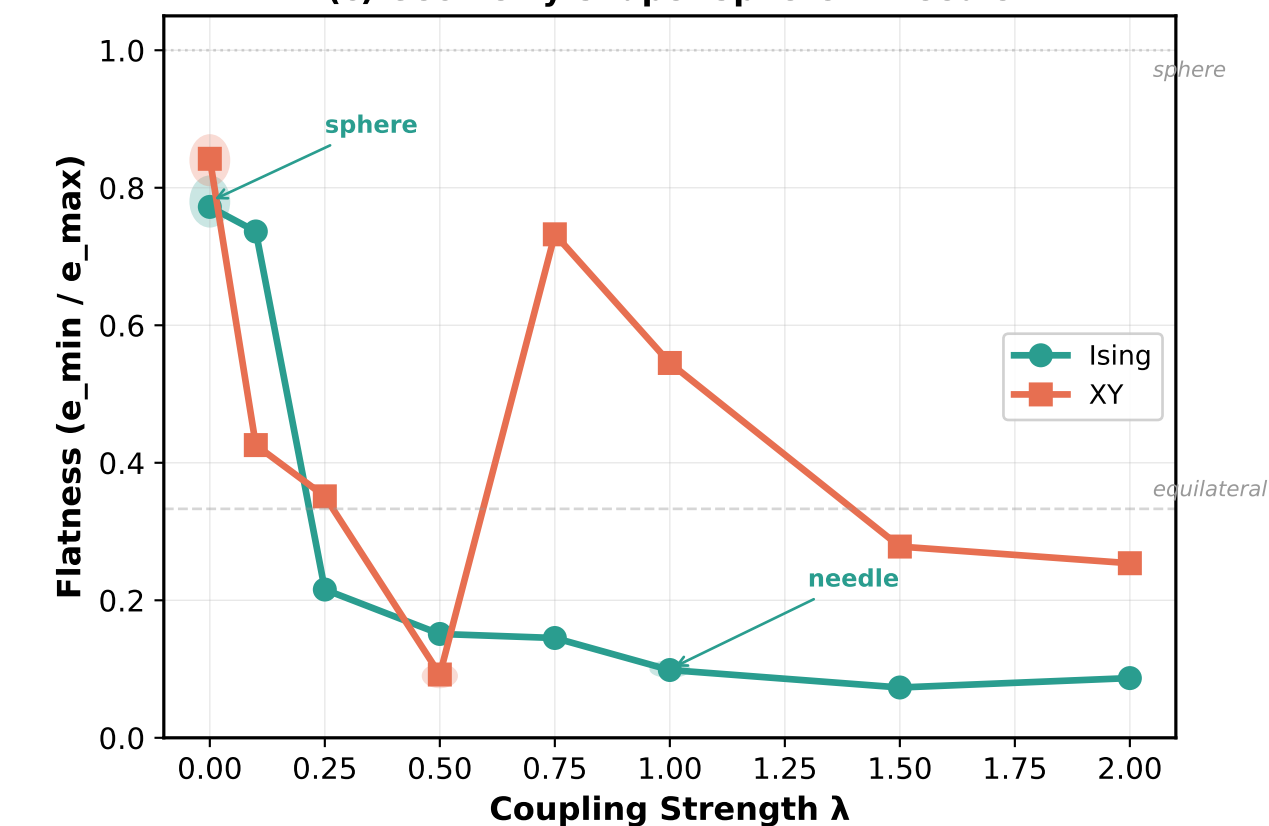

(a) Ising — Eigenvalue Spectrum
Legend: e_max (C_ZZ), e_mid, e_min
Spread 10.1×

(b) XY — Eigenvalue Spectrum
Legend: e_max (C_XX), e_mid (C_YY), e_min (C_ZZ)
Spread 10.9×

(c) Geometry Shape: Sphere → Needle
Flatness (e_min / e_max) vs Coupling Strength λ
Labels: sphere, equilateral, needle
Legend: Ising, XY

(d) Ricci Scalar Analog — Geometric Curvature
$d^2\mathrm{Tr}(G)/d\lambda^2$ vs Coupling Strength λ
geometry accelerating
Ising inflection λ ≈ 0.31
geometry decelerating
Legend: Ising R_analog, XY R_analog