Synergy of Normalization and Activation (k_{in}=5, d_{full}=20)

ReLU (σ)

Tanh (σ)

Norm. Eigenvalue

Eigenvalue Index
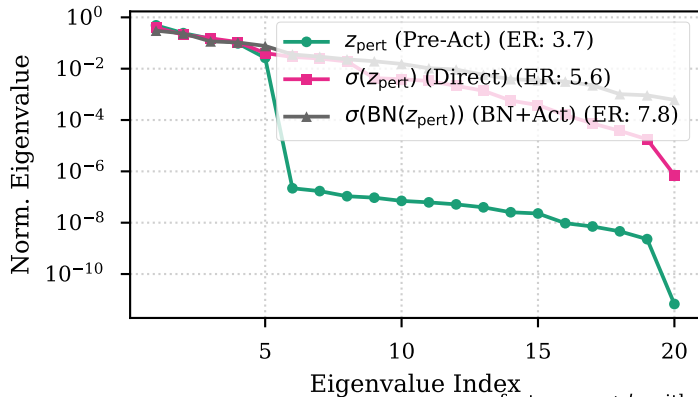
z_{pert}: per-feature $a_j x_j + b_j$ with $a_j \sim U[0, 2], b_j \sim U[0, 1]$

ReLU (σ) legend:
- z_{pert} (Pre-Act) (ER: 3.7)
- $\sigma(z_{pert})$ (Direct) (ER: 5.6)
- $\sigma(BN(z_{pert}))$ (BN+Act) (ER: 7.8)

Tanh (σ) legend:
- z_{pert} (Pre-Act) (ER: 4.1)
- $\sigma(z_{pert})$ (Direct) (ER: 5.6)
- $\sigma(BN(z_{pert}))$ (BN+Act) (ER: 5.1)