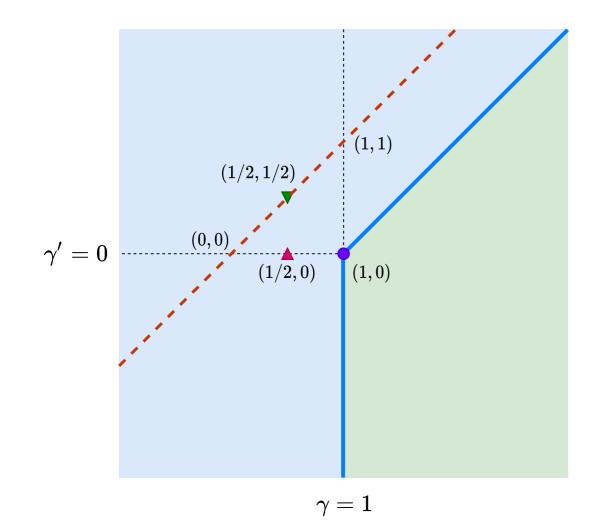
## **Phase Diagram**



- Linear regime
- Condensed regime
- Critical regime

Examples:

- Xavier, Mean field
- ▲ NTK
- · E at el. (2020)
- ▼ LeCun, He

$$a_k^0 \sim N(0,eta_1^2), ~~ \mathbf{w}_k^0 \sim N(0,eta_2^2 \mathbf{I}_d)$$

$$\gamma = \lim_{m o \infty} - rac{\log eta_1 eta_2 / lpha}{\log m}, \;\;\; \gamma' = \lim_{m o \infty} - rac{\log eta_1 / eta_2}{\log m}$$