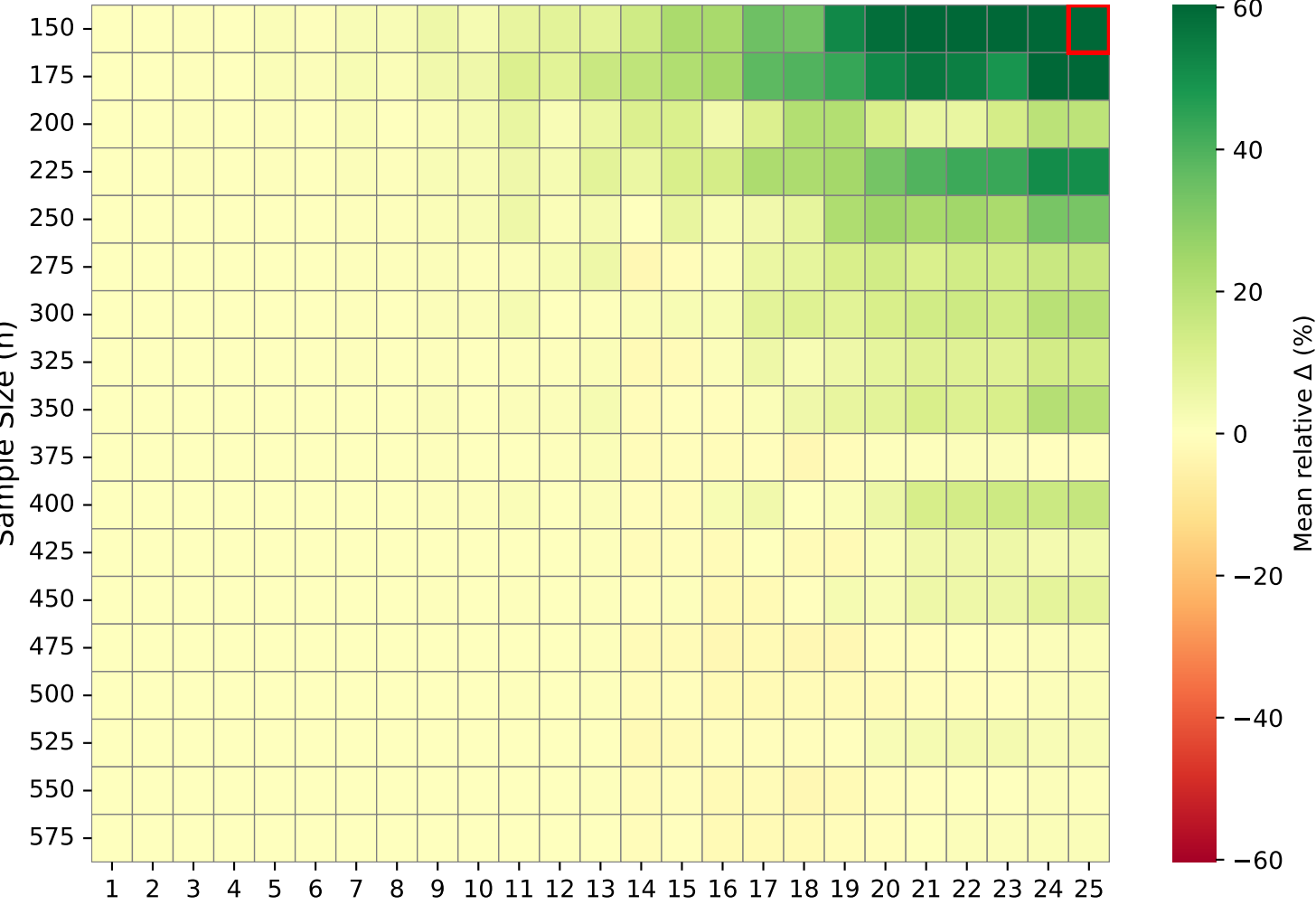
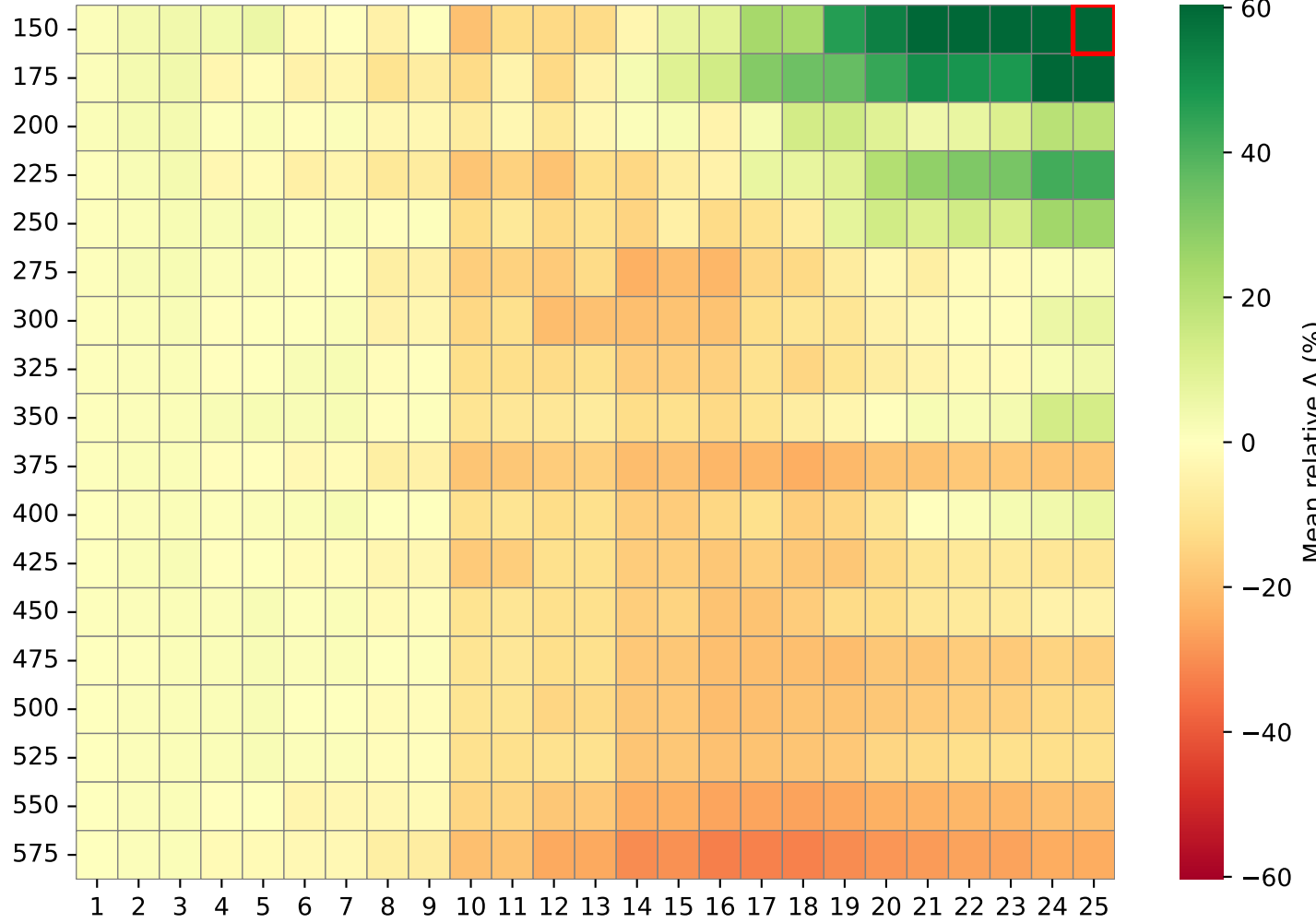


**Regularization Effectiveness Across Noise Levels**  
Color = Mean relative improvement over OLS (% , green = better)

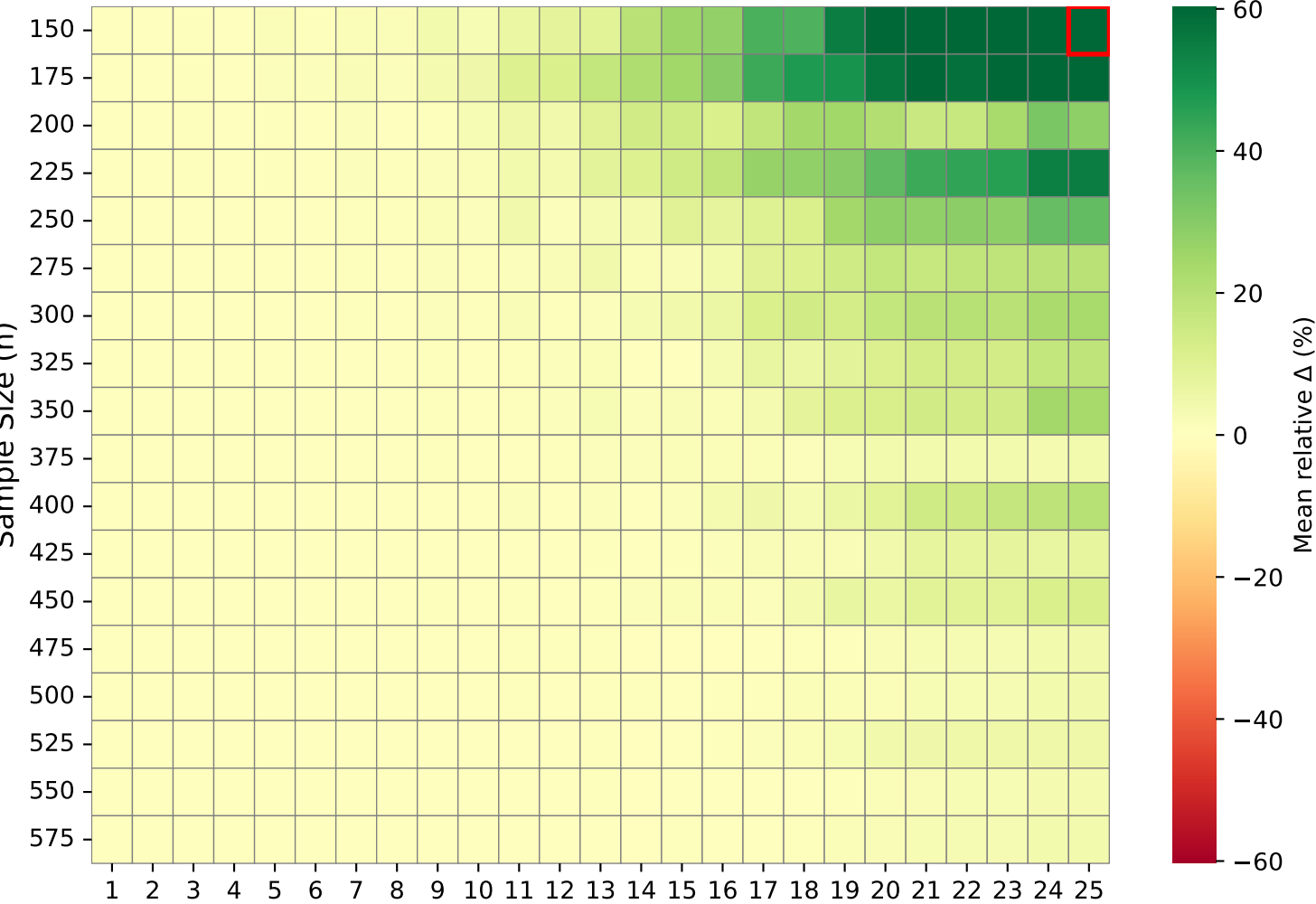
**Ridge | Low Noise ( $\sigma=0.1$ )**



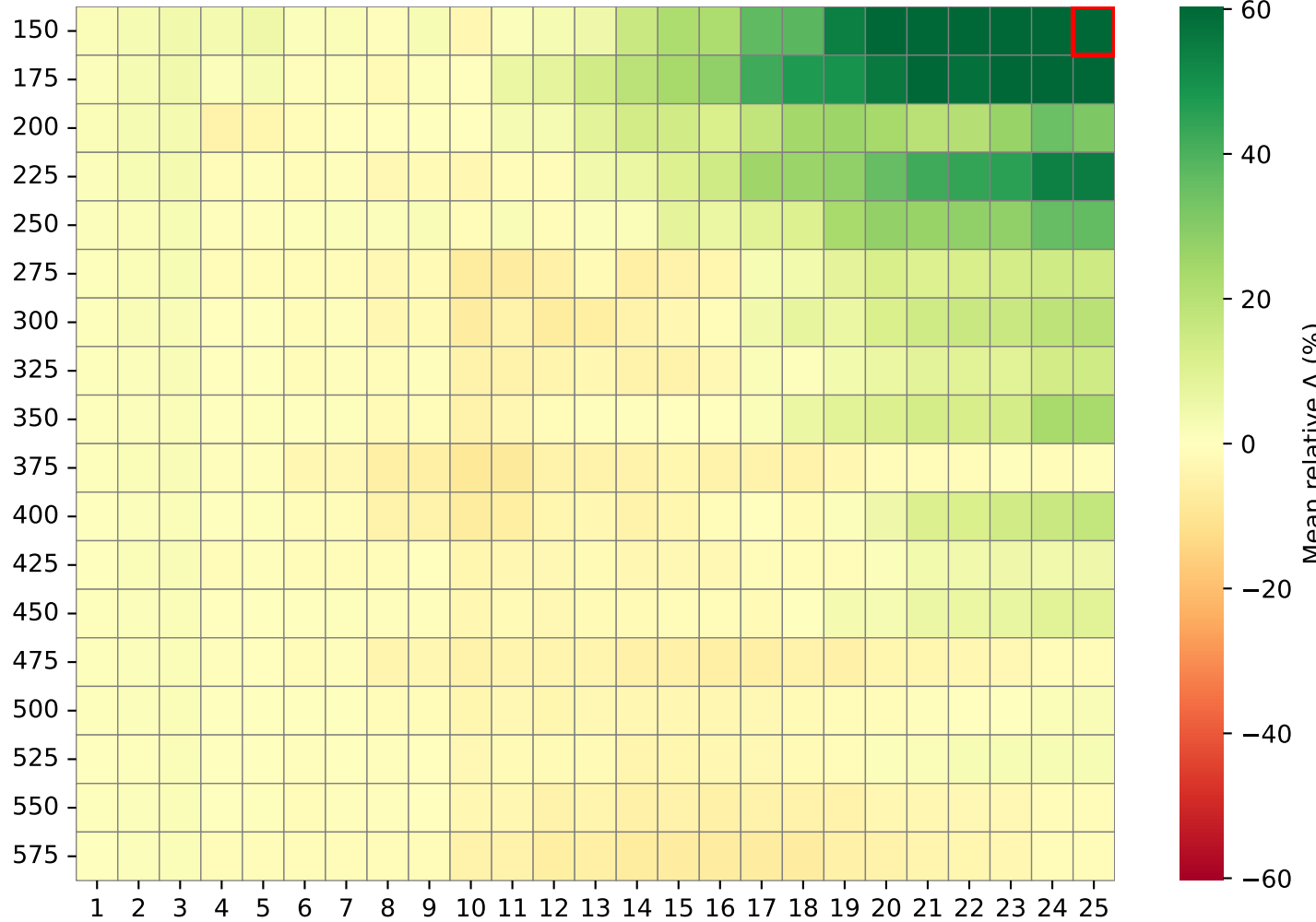
**Lasso | Low Noise ( $\sigma=0.1$ )**



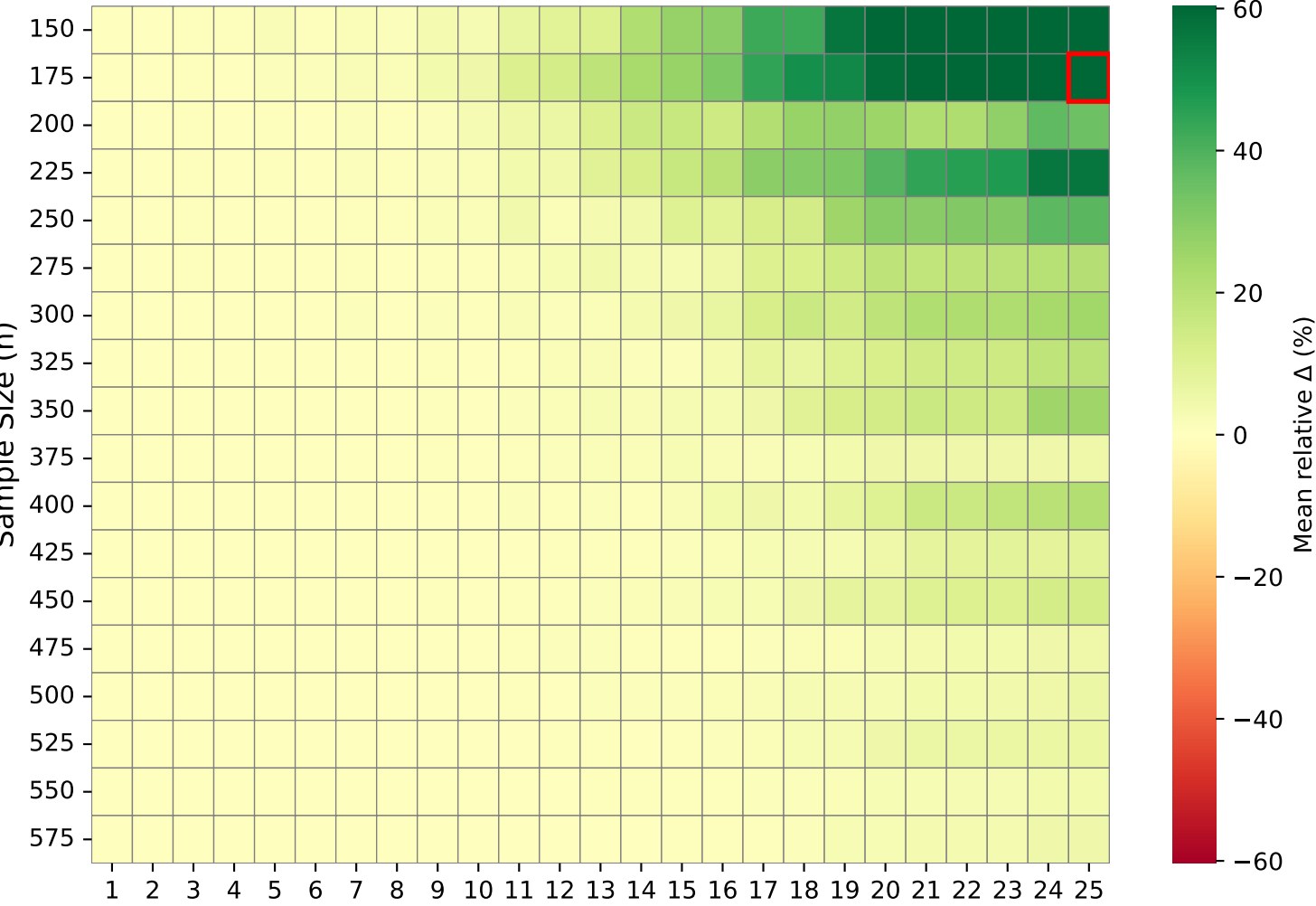
**Ridge | Medium Noise ( $\sigma=0.2$ )**



**Lasso | Medium Noise ( $\sigma=0.2$ )**



**Ridge | High Noise ( $\sigma=0.3$ )**



**Lasso | High Noise ( $\sigma=0.3$ )**

