Distance from window with causal mutations. $Z_0 = 1$:Standing Var. $Z_0 = 1$:Standing Var. $Z_0 = 1$:Standing Var. $\mu = 0.001$ $\mu = 0.00025$ $\mu = 0.005$ 0.3 0.2 0.1 0.0 -0.1-0.2 $Z_0 = 1$:New mutation $Z_0 = 1$:New mutation $Z_0 = 1$:New mutation $\mu = 0.00025$ $\mu = 0.001$ $\mu = 0.005$ 0.3 0.2 0.1 0.0 Mean z-score -0.1-0.2 $Z_0 = 0.5$:Standing Var. $Z_0 = 0.5$:Standing Var. $Z_0 = 0.5$:Standing Var. $\mu = 0.00025$ $\mu = 0.001$ $\mu = 0.005$ 0.3 0.2 0.1 0.0 -0.1 -0.2 $Z_0 = 0.5$:New mutation $Z_0 = 0.5$:New mutation $Z_0 = 0.5$:New mutation $\mu = 0.00025$ $\mu = 0.001$ $\mu = 0.005$ 0.3 0.2 0.1 0.0 -0.1-0.20 ropo 15000 0 0

Generations since optimum shift