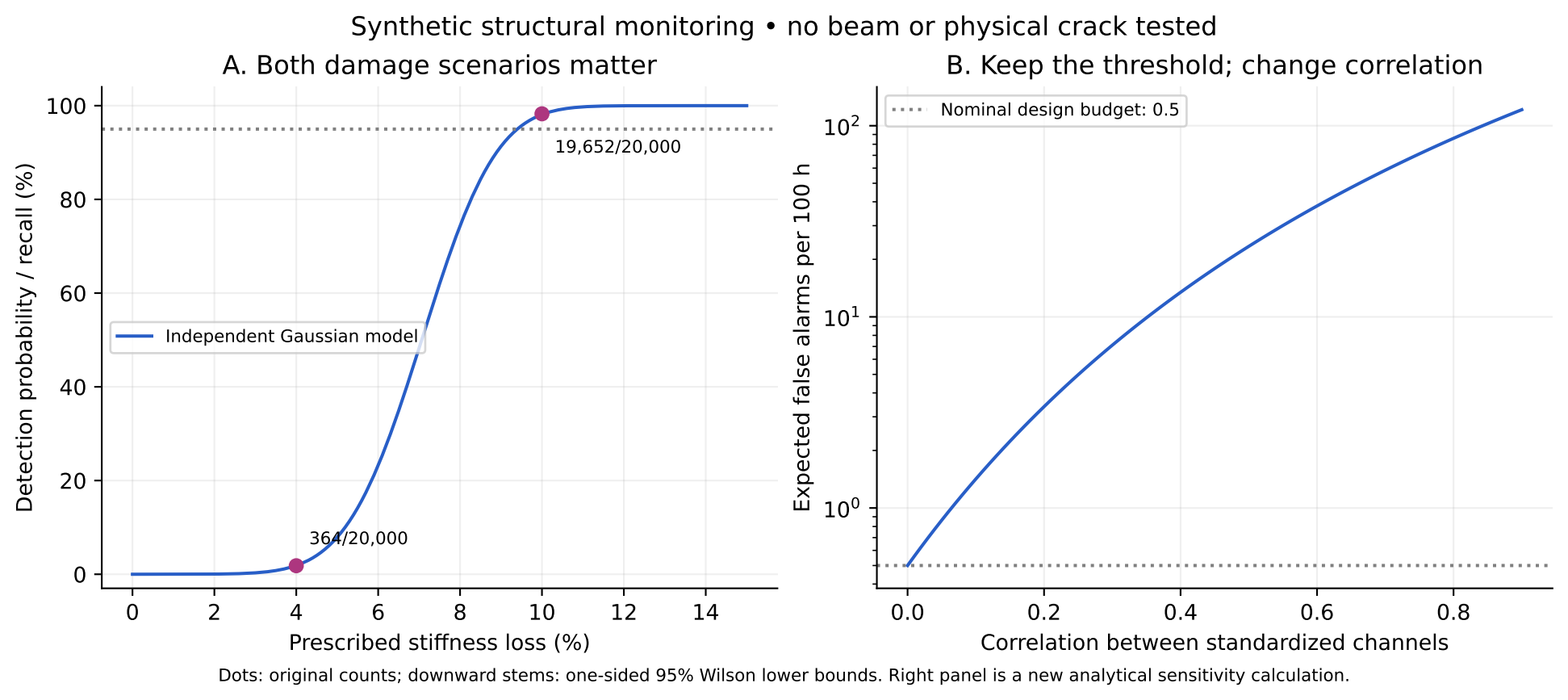

Synthetic structural monitoring • no beam or physical crack tested
A. Both damage scenarios matter
B. Keep the threshold; change correlation
Detection probability / recall (%)
Prescribed stiffness loss (%)
Independent Gaussian model
364/20,000
19,652/20,000
Expected false alarms per 100 h
Correlation between standardized channels
Nominal design budget: 0.5
Dots: original counts; downward stems: one-sided 95% Wilson lower bounds. Right panel is a new analytical sensitivity calculation.