

Question #141

Key: E

Let $\hat{H} = \hat{H}(t)$ and $\hat{v} = \text{Var}(\hat{H}(t))$. The confidence interval is $\hat{H}U$ where $U = \exp(\pm z_{\alpha/2} \sqrt{\hat{v}} / \hat{H})$. Multiplying the two bounds gives $0.7(0.357) = \hat{H}^2$ for $\hat{H} = 0.49990$. Then, $\hat{S} = \exp(-0.49990) = 0.60659$.