

Estimating sampling uncertainty – how many duplicate samples are needed?

AT 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58

A knowledge of the measurement uncertainty arising from sampling is

$$\sum_{i=1}^n \frac{1}{i} \approx \ln n + \gamma \quad \left(\sum_{i=1}^n \frac{1}{i^2} \approx \frac{\pi^2}{6} \right)$$