

**INFLUENCE OF MEASUREMENT ERRORS IN THE CONSTRUCTION
OF CONTROL LIMITS OF A CALIBRATION GRAPH FUNCTIONAL,
WITH THE VARIANCE OF THE ERRORS ALLEGEDLY KNOWN**

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- **ABSTRACT:** *The objective of this article is to verify the influence that the measurement errors exert on the obtaining of the control limits, when a graph is constructed to monitor the behavior or simultaneous relationship between two variables linearly correlated. In this article specifically, a graph of a functional linear calibration control will be used, supposing that the variance of measurement errors are known. A calibration model is nothing but an inverted regression model. In the functional calibration model we find as main characteristic the fact that the independent variable X is considered a rigid constant or a controlled variable. Nevertheless, the values for this variable X can or cannot present errors in its measuring. These two situations will be taken into account, besides the necessity to consider the magnitude of variance of these measurement errors as well.*
- **KEYWORDS:** *Calibration; estimators; control graph.*

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