quadratic mean, $\bar{x}_q$

The square root of the expression in which the sum of squared observations is divided by the number n. It can be calculated by the formula:

$$\bar{x}_q = \sqrt{\frac{\sum x_i^2}{n}}$$

Comment:
This quantity is also sometimes directly (but inappropriately) calculated, for example, when an observable is proportional to the square of concentration. The quadratic mean, also known as the root mean square, is sometimes appropriate, however, as in certain of the formulae connected with linear calibration functions.

Source:
PAC, 1994, *66*, 595 *(Nomenclature for the presentation of results of chemical analysis (IUPAC Recommendations 1994))* on page 602