

Standardized central momentum = <n>

@wikipedia

A set of [statistical metrics](#), characterizing the average deviation of the numerical values in the given [dataset](#) $x = \{x_1, x_2, x_3, \dots x_N\}$ from its [Mean Value](#) $\mu(x)$:

$$\bar{\mu}_n = \frac{\mu_n}{\sigma^n}, \quad n \geq 3$$

where

μ_n	n-order of central momentum
σ	standard deviation

The concept makes sense only for the [central momentums](#) of higher order than $n \geq 3$, since lower order [central momentums](#) $\bar{\mu}_0 \equiv 1/\sigma$, $\bar{\mu}_1 \equiv 0$, $\bar{\mu}_2 \equiv 1$ are trivial and do not carry additional information on [dataset](#) distribution.

The most popular application is the 3-rd order [standardized central momentum](#) $\mu_3 = \bar{\mu}_3 \cdot \sigma^3$, which is called [skewness](#) and characterizes asymmetry of the [dataset](#) distribution.

See also

[Formal science](#) / [Mathematics](#) / [Statistics](#) / [Statistical Metric](#) / [Central momentum](#)