

Some common¹ abbreviations and notations²

- (1) ANOVA — analysis of variance
- (2) $B(x, y)$ — Beta function [$B(x, y) = \Gamma(x)\Gamma(y)/\Gamma(x + y)$.]
- (3) cdf — cumulative distribution function
- (4) χ_n^2 — chi-square distribution with n degrees of freedom
- (5) CF — characteristic function
- (6) CI — confidence interval
- (7) CLT — Central Limit Theorem
- (8) Cov — covariance
- (9) Cor — correlation
- (10) DOE — design of experiment
- (11) \mathbb{E} — expected value
- (12) $F_{m,n}$ — F distribution with m degrees of freedom on top and n on bottom
- (13) $\Gamma(x)$ — Gamma function
- (14) iid — independent (and) identically distributed
- (15) L — the likelihood function
- (16) LIL — law of iterated logarithm
- (17) LLN — law of large numbers
- (18) MGF — moment generating function
- (19) MLE — maximum likelihood estimator
- (20) MVUE — minimum-variance unbiased estimator
- (21) MSB — mean square for blocks
- (22) MSE — mean-square error *or* mean square for error
- (23) MST — mean square for treatments
- (24) $\mathcal{N}(\mu, \sigma^2)$ — Gaussian (normal) random variable with mean μ and variance σ^2
- (25) \mathbb{P}, P — probability
- (26) pdf — probability density function (for absolutely continuous distributions)
- (27) pmf — probability mass function (for discrete distributions)
- (28) RR — rejection region
- (29) SD — standard deviation
- (30) SE — standard error
- (31) SSE — sum of squares for error
- (32) $\hat{\theta}$ — an estimator of θ
- (33) t_n — t distribution with n degrees of freedom
- (34) Var — variance
- (35) $X_{(1)}, \dots, X_{(n)}$ — the order statistics (ordering) of the sample X_1, \dots, X_n .
- (36) x_α — **the tail** α -quantile of the random variable X : $\mathbb{P}(X > x_\alpha) = \alpha$. For example, $z_{0.025} = 1.96$.
- (37) Z — a standard normal random variable, that is, $\mathcal{N}(0, 1)$.

¹but not necessarily universal

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