

Fig. 9.8 Upper limits at 95% confidence level for the example of Section 9.8 using the classical, shifted and Bayesian techniques. The shifted and classical techniques are equal for $\hat{\theta}_{\text{obs}} \geq 0$.

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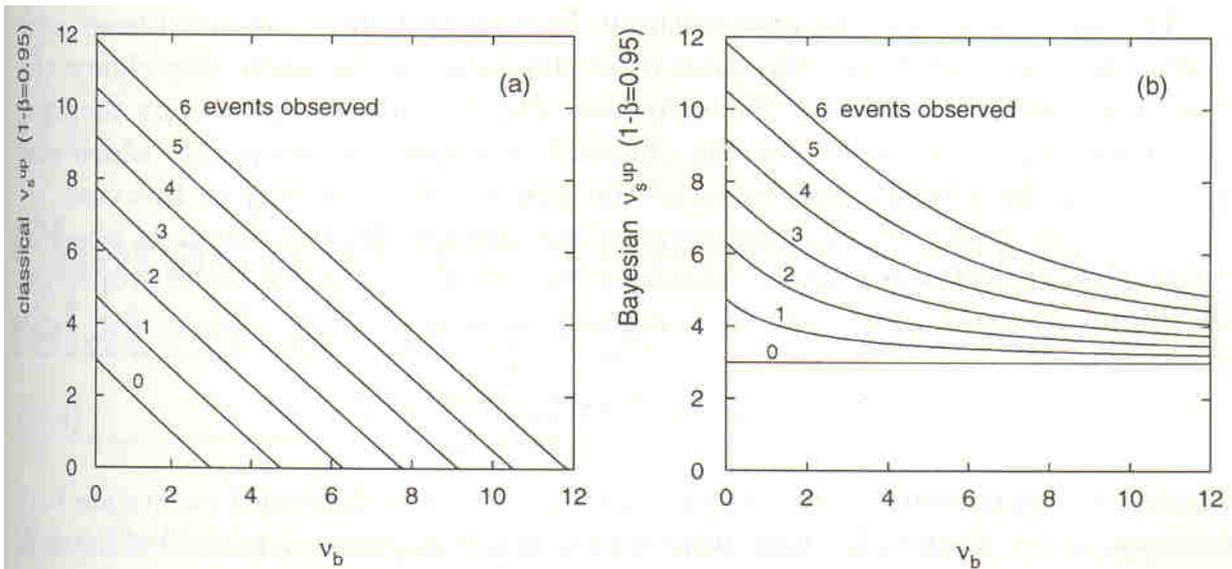


Fig. 9.9 Upper limits ν_s^{up} at a confidence level of $1 - \beta = 0.95$ for different numbers of events observed n_{obs} and as a function of the expected number of background events ν_b . (a) The classical limit. (b) The Bayesian limit based on a uniform prior density for ν_s .

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9. Konfidenzintervalle und -grenzen

9.1 Konstruktion von Konfidenzintervallen

9.2 Konfidenzintervalle für Gauß-verteilte Schätzwerte

9.3 Konfidenzintervalle für nicht-gaußisch verteilte Schätzwerte

9.4 Konfidenzintervalle für den Mittelwert einer Poisson-Verteilung

9.5 Konfidenzintervalle nahe bei physikalischen Grenzen

9.6 Konfidenzlimit für das Mittel einer Poisson-Verteilung mit Untergrund

9.7 Systematische Fehler bei Bestimmung von Konfidenzgrenzen

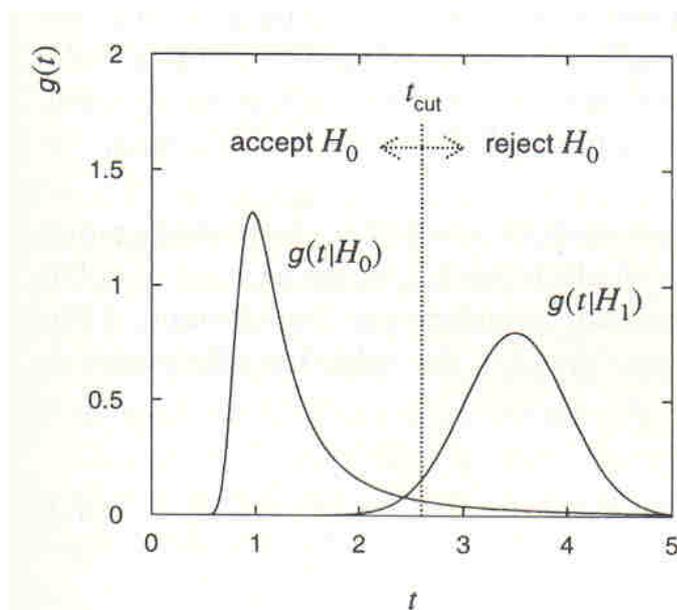


Fig. 4.1 Probability densities for the test statistic t under assumption of the hypotheses H_0 and H_1 . H_0 is rejected if t is observed in the critical region, here shown as $t > t_{\text{cut}}$.

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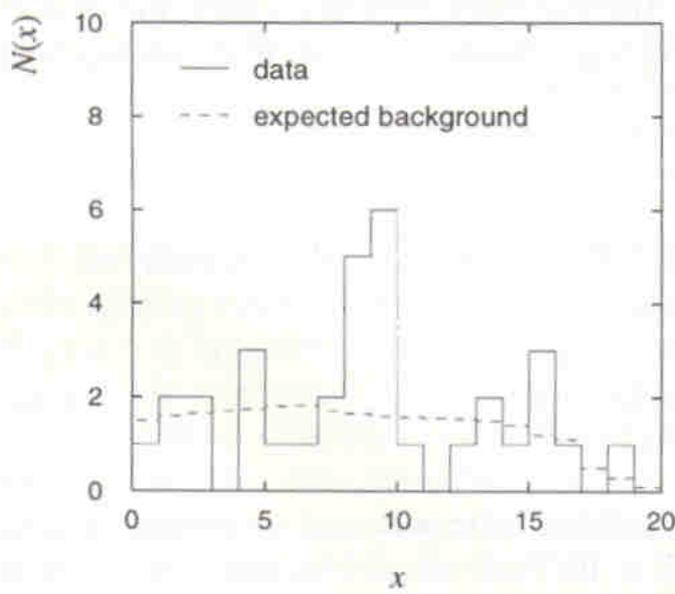


Fig. 4.3 Observed and expected histograms of a variable x . The data show a marginally significant peak.

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