Rejstřík. D. Některé integrály

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$\int_0^{+\infty} e^{-x}x^{s-1}\,dx$ viz „funkce gamma“; $\int_0^1 x^{p-1}(1-x)^{q-1}\,dx$ viz „funkce beta“. Integrál pro Eulerovu konstantu viz 697, pro $\Gamma'(s) : \Gamma(s)$ 701, pro $\lg \Gamma(s)$

704. $\int_0^1 \frac{x^{\alpha-1}(1-x)^{\beta-1}}{(a+bx)^{\alpha+\beta}}\,dx$ (693); $\int_0^{\frac{1}{2}\pi} \sin^{m-1}x \cos^{n-1}x\,dx$ $(m > 0,\ n > 0)$ (692); $\int_0^{+\infty} e^{-ax}\cos bx \,.\, x^{s-1}\,dx$, $\int_0^{+\infty} e^{-ax}\sin bx \,.\, x^{s-1}\,dx$ $(a > 0,\ s > 0)$ (344); $\int_0^{+\infty} \cos bx \,.\, x^{s-1}\,dx$, $\int_0^{+\infty} \sin bx \,.\, x^{s-1}\,dx$ $(b \neq 0, 0 < s < 1)$ (344); $\int_0^{+\infty} e^{cx}x^{s-1}\,dx$ pro komplexní $c$, $s$ (346); $\int_0^{+\infty} \frac{x^{b-1}}{1+x}\,dx$ $(0 < b < 1)$ (277); $\int_0^{+\infty} e^{-\alpha x}\frac{\sin \beta x}{x}$ . . $dx$ $(\alpha > 0)$ (334, 346); $\int_0^{+\infty} \frac{\sin \beta x}{x}\,dx$ (330, 335, 345, 352, 359); $\int_0^{+\infty} e^{-ax^2}$ . . $\cos bx\,dx$, $\int_0^{+\infty} e^{-ax^2}\sin bx\,dx$ $(a > 0)$ (295); $\int_0^{+\infty} e^{-x^2}\,dx$ (142, 223, 251); $\int_0^{+\infty} e^{-ax^2}\cos bx^2\,dx$, $\int_0^{+\infty} e^{-ax^2}\sin bx^2\,dx$ $(a > 0)$ (340, 345); $\int_0^{+\infty} \cos x^2\,dx =$ $= \frac{1}{2}\int_0^{+\infty} \cos t\,\frac{dt}{\sqrt{t}}$, $\int_0^{+\infty} \sin x^2\,dx = \frac{1}{2}\int_0^{+\infty} \sin t\,\frac{dt}{\sqrt{t}}$ (342, 345, 361); $\int_0^{+\infty} \frac{\cos \alpha x}{\beta^2+x^2}$ . . $dx$ $(\beta \neq 0)$ (350, 357, 535); $\int_0^{+\infty} \frac{x\sin \alpha x}{\beta^2+x^2}\,dx$ $(\beta \neq 0)$ (350, 535).