

$f(z)$

z_α



The figure shows a standard normal distribution curve, $f(z)$, plotted on a grid. The horizontal axis represents the variable z , and the vertical axis represents the probability density $f(z)$. A vertical line is drawn at a point labeled z_α on the horizontal axis. The area under the curve to the right of this line is shaded in red, representing the upper tail probability $P(Z > z_\alpha)$.