The figure shows a plot of σ_{yy} versus crack length (x).

Vertical axis labeled σ_{yy} with gridlines at 0, 1, 2, 3.

Horizontal axis labeled $crack\ length\ (x)$ with markings at a, $2a$, $3a$.

$$\sigma_{yy} = \frac{\sigma_{\infty}}{\sqrt{1 - \left(\frac{a}{x}\right)^2}}$$

$$\sigma_{yy} = \frac{\sigma_{\infty}\sqrt{\pi a}}{\sqrt{2\pi r}}$$