Primary beam models for VPIPE

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PB model (code)	**Analytical form**	**`pb_param` inputs**
Gaussian (G)	$P(\theta) = P_0 \exp\left(-\frac{4\ln(2)D^2}{\lambda^2}\theta^2\right)$	$[D]$
Jinc (B)	$P(\theta) = P_0 \left(\frac{2J_1\left(\frac{\pi}{\lambda}D\sin\theta\right)}{\frac{\pi}{\lambda}D\sin\theta}\right)^2$	$[D]$
Polynomial (P)	$P(\theta) = 1 + 10^{-3}a_1\theta + 10^{-6}a_2\theta^2 + 10^{-9}a_3\theta^3 + 10^{-12}a_4\theta^4$	$[a_1, a_2, a_3, a_4]$
Elliptical 2D Gaussian (2G)	$P(\theta) = \exp\left[-\frac{\theta^2(1-\min[\alpha_{coma}(\theta_{\rm coma}/\Theta_0),0.75])}{\Theta^2}\right]$ where, $\Theta = \Theta_0 + \Theta_1\cos\left[2\left(\phi-\phi_{\rm beam}\right)\right]$ and, $\theta_{\rm coma} = \theta\cos\left(\phi-\phi_{\rm coma}\right)$	$[\Theta_0, \Theta_1, \phi_{\rm beam}, \alpha_{\rm coma}, \phi_{\rm coma}]$