

5.11 To find the magnetic field B at P due to a current-carrying wire we use the Biot-Savart law,

$$\vec{B}(\vec{r}) = \frac{\mu_0}{4\pi} I \int \frac{d\vec{l} \times \hat{\mathcal{R}}}{\mathcal{R}^2}$$

In the figure, with “ dl ” shown, what is $\vec{\mathcal{R}}$?

(please draw r , r' , and $\vec{\mathcal{R}} = r - r'$)

P
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