The Title of the Presentation

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Calculating integral

$$\frac{1}{\mathcal{V}}\sum_{|\mathbf{p}|\le k_F} e^{-i\mathbf{px}}\cdot d^3\mathrm{p}\cdot\frac{\mathcal{V}}{(2\pi)^3}=\frac{1}{(2\pi)^3}\int_{|\mathbf{p}|\le k_F} e^{-i\mathbf{px}}d^3\mathrm{p}=$$

$$=\frac{1}{(2\pi)^3}\int_{\mathrm{p}=0}^{k_F}\int_{\Theta=0}^{\pi}\int_{\phi=0}^{2\pi} e^{-i\mathrm{p}r\mathrm{p}^2\cos\Theta}\sin\Theta\, d\phi d\Theta d\mathrm{p}=\frac{1}{(2\pi)^2}\int_{\mathrm{p}=0}^{k_F}\int_{\eta=-1}^{1} e^{i\mathrm{p}$$

$$\frac{1}{(2\pi)^2}\int_{\mathrm{p}=0}^{k_F} 2\frac{\mathrm{p}}{r}\sin\mathrm{p}r d\mathrm{p}=\frac{2}{(2\pi)^2 r^3}\int_{\mathrm{p}r=0}^{k_F r}\mathrm{p}r\sin\mathrm{p}r d\mathrm{p}r=\frac{1}{2\pi^2 r^3}\{\sin(k_F r)-k_F$$

$$=N\frac{3\pi^2}{k_F^3\mathcal{V}}\frac{1}{2\pi^2 r^3}\{\sin(k_F r)-k_F r\cos(k_F r)\}=$$

$$=\frac{3N}{2\mathcal{V}}\frac{\sin(k_F r)-k_F r\cos(k_F r)}{(k_F r)^3}=\left(\frac{N}{2\mathcal{V}}\right)3\frac{\sin(k_F r)-k_F r\cos(k_F r}{(k_F r)^3} \tag{1}$$

Example frame 1

This is the first frame

Example frame 2

Example block

- item 1
- item 2