



Symmetry in Condensed-Matter Physics

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Course Web Page

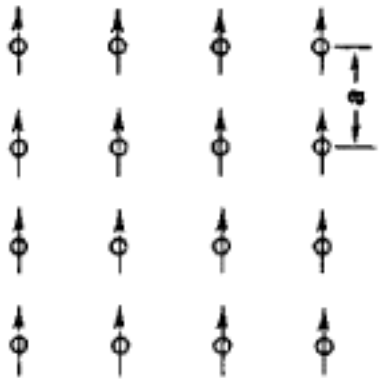
<https://www2.physics.ox.ac.uk/students/course-materials/symmetry-in-condensed-matter-physics>

Bibliography

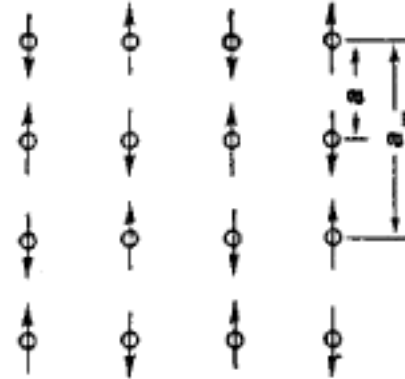
M.S. Dresselhaus, G. Dresselhaus and A. Jorio, *Group Theory - Application to the Physics of Condensed Matter*, Springer-Verlag Berlin Heidelberg (2008).

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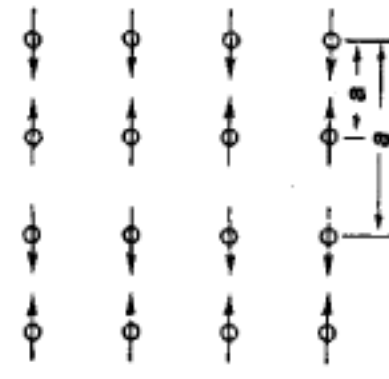
Symmetry of discrete lattice functions (field)



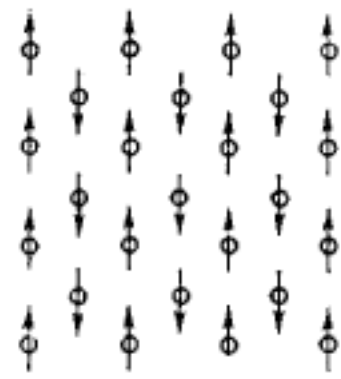
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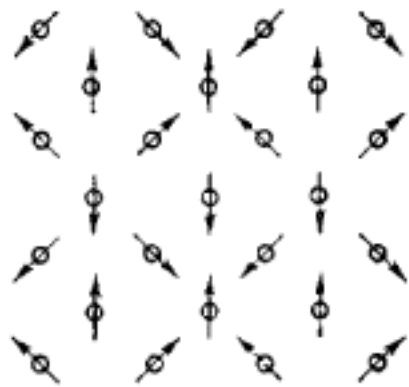
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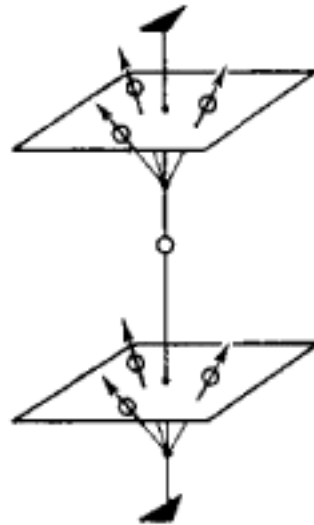
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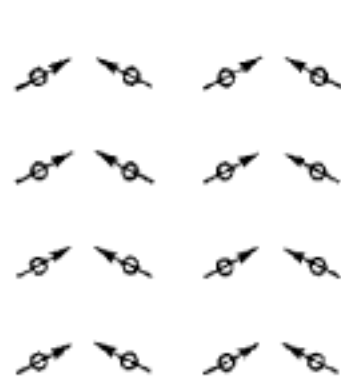
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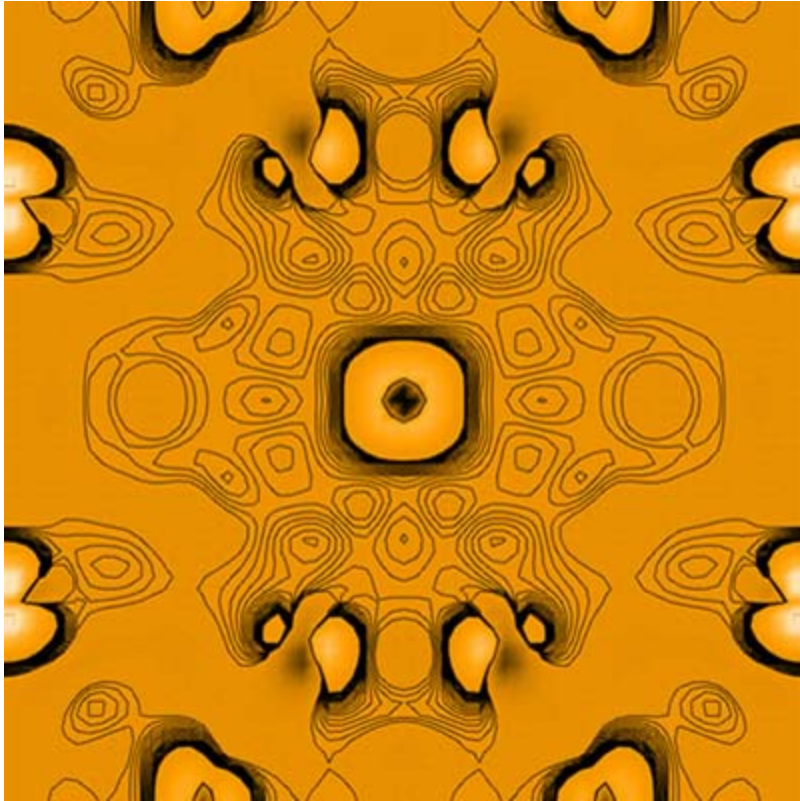


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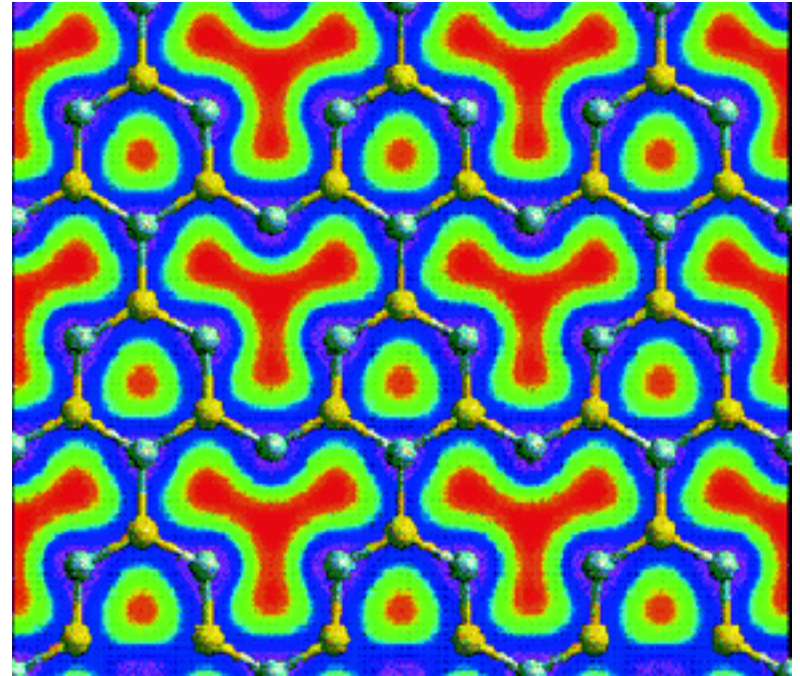


h

Symmetry of continuous lattice functions (field)



$\text{Ba}_8\text{Si}_{46}$



C_3N_4

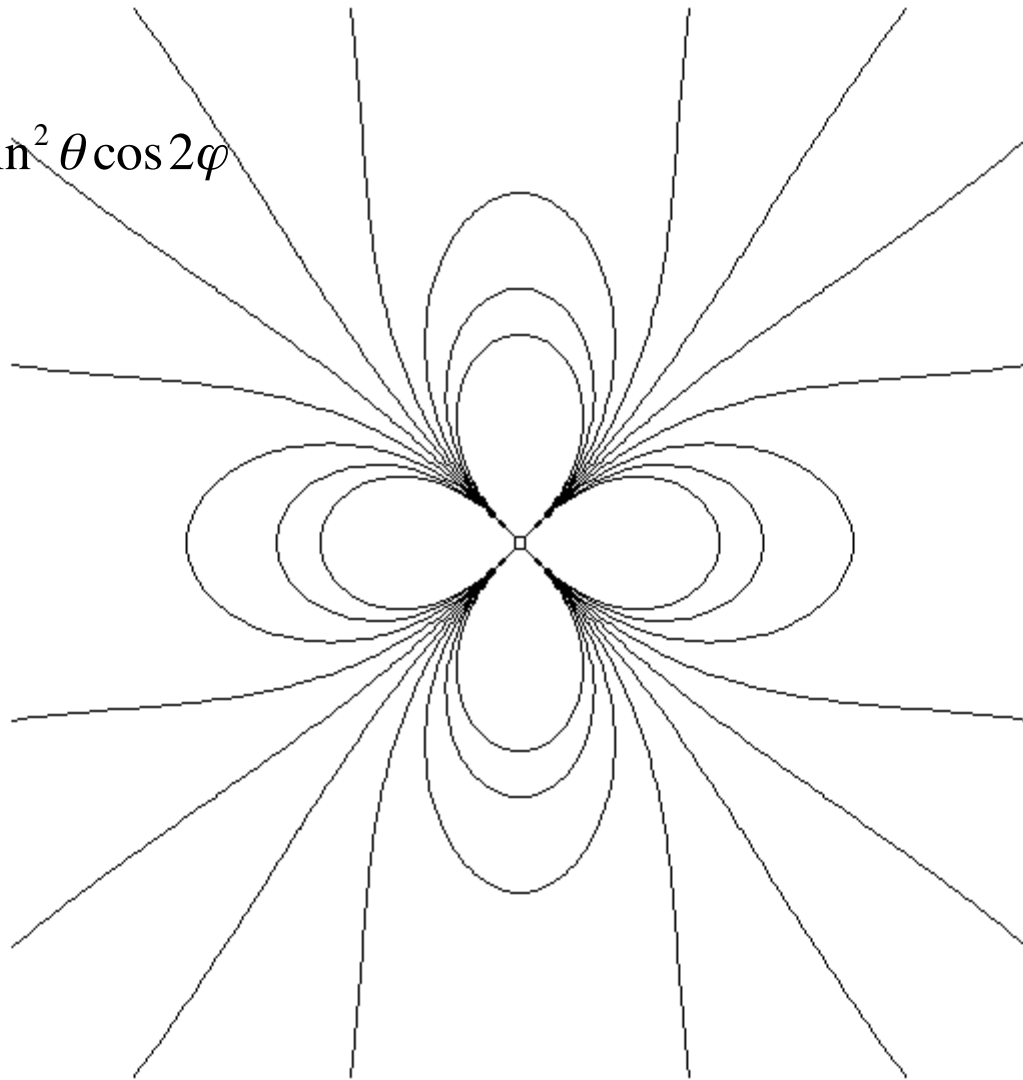
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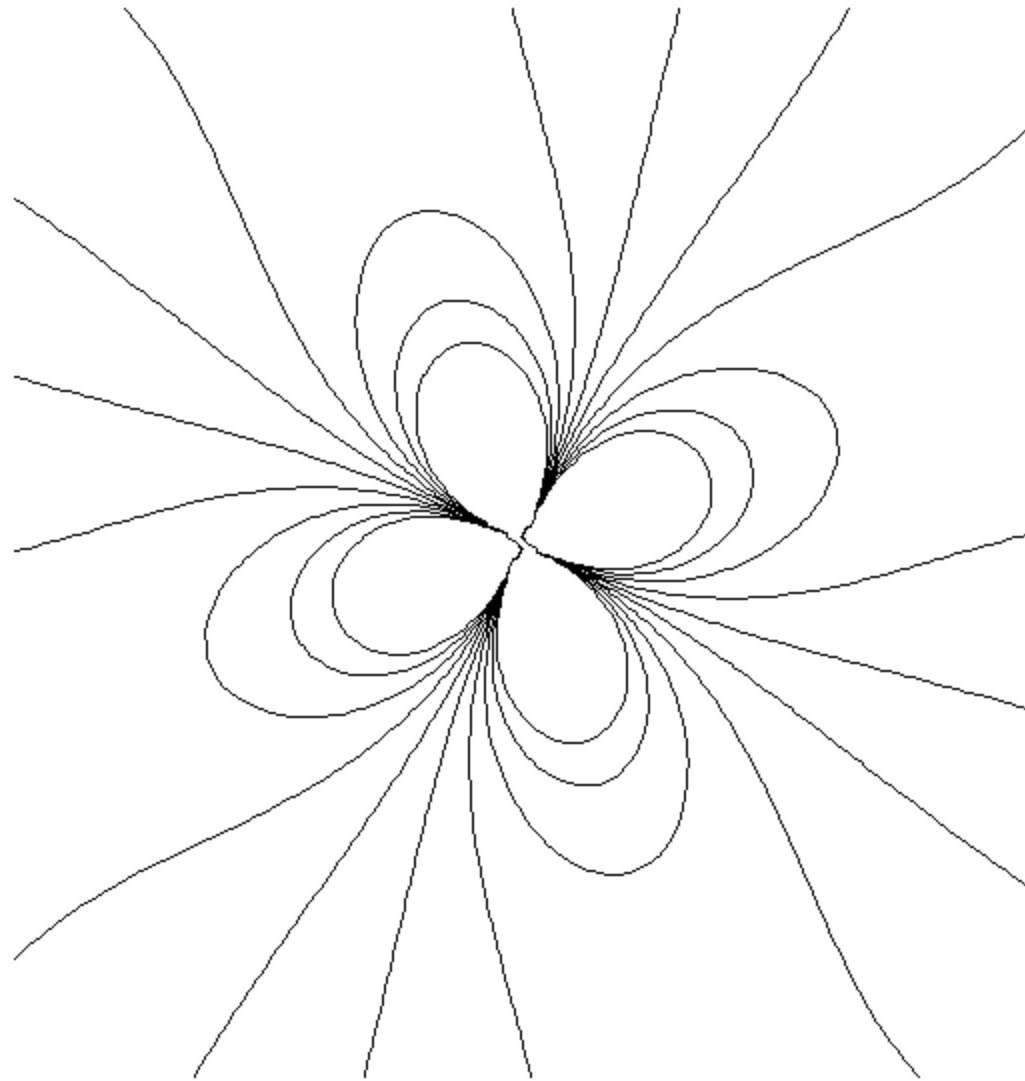
$$R = \left(\frac{r}{a_0} \right)^2 e^{-\frac{r}{3a_0}}$$

$$Y = \frac{1}{r^2} (x^2 - y^2) = \sin^2 \theta \cos 2\varphi$$

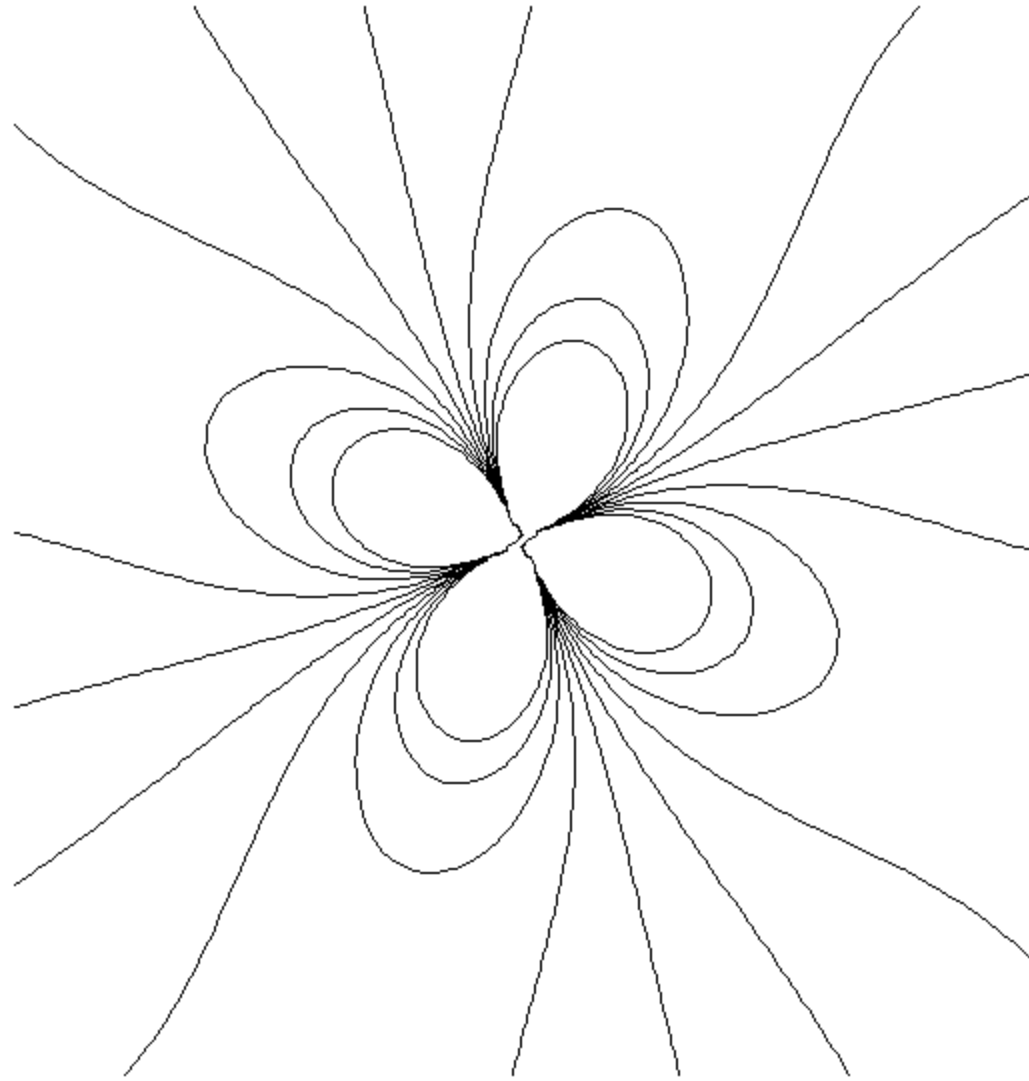
$$\varphi = 0^\circ$$

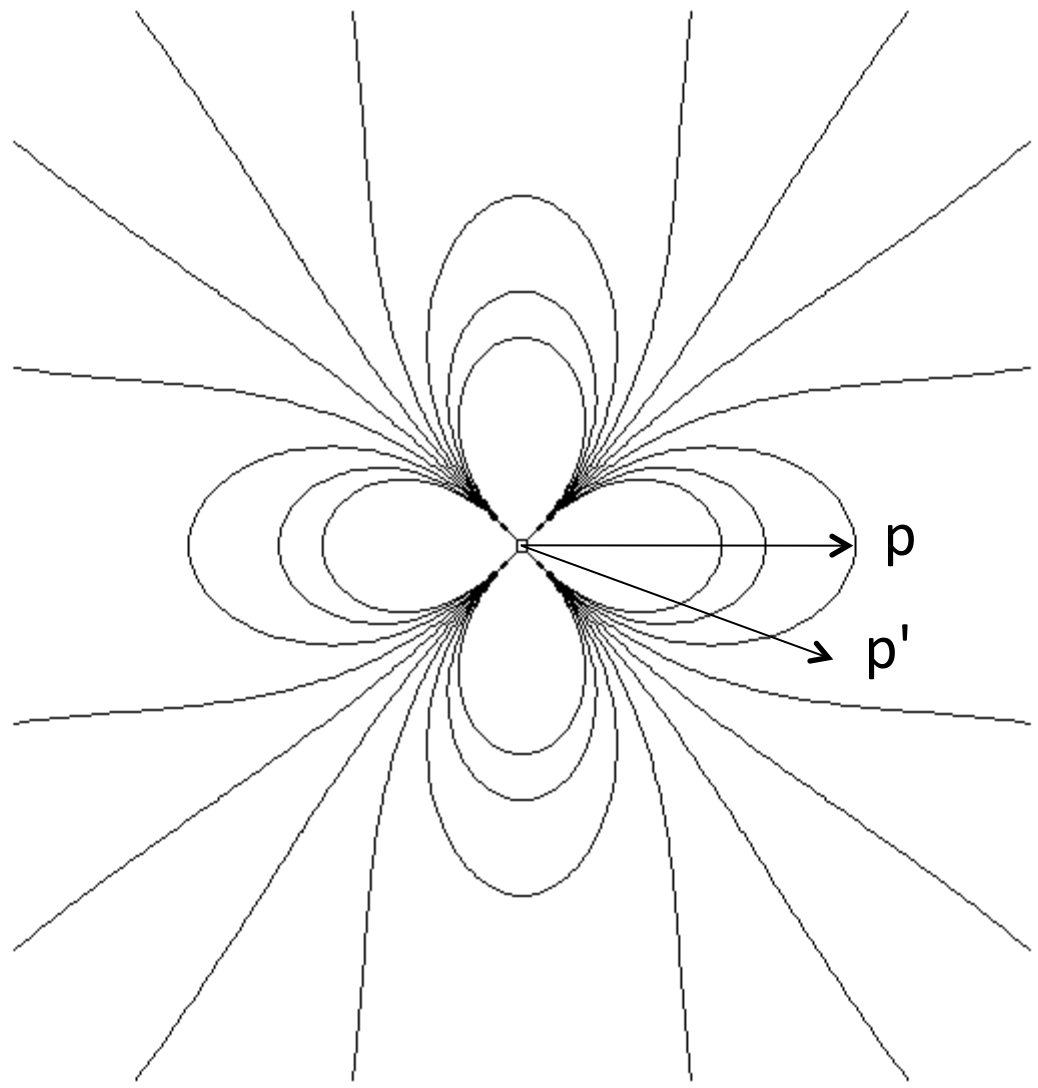


+20°



-20°





+20°

