

## 14.4: Lorenz Condition

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It turns out that the four components of the potential four-momentum are not independent, but are subject to the condition

$$\frac{\partial Q_x}{\partial x} + \frac{\partial Q_y}{\partial y} + \frac{\partial Q_z}{\partial z} + \frac{1}{c^2} \frac{\partial U}{\partial t} = 0 \quad (14.4.1)$$

This is called the **Lorenz condition**. The physical meaning of this condition will become clear when we study electromagnetism.

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