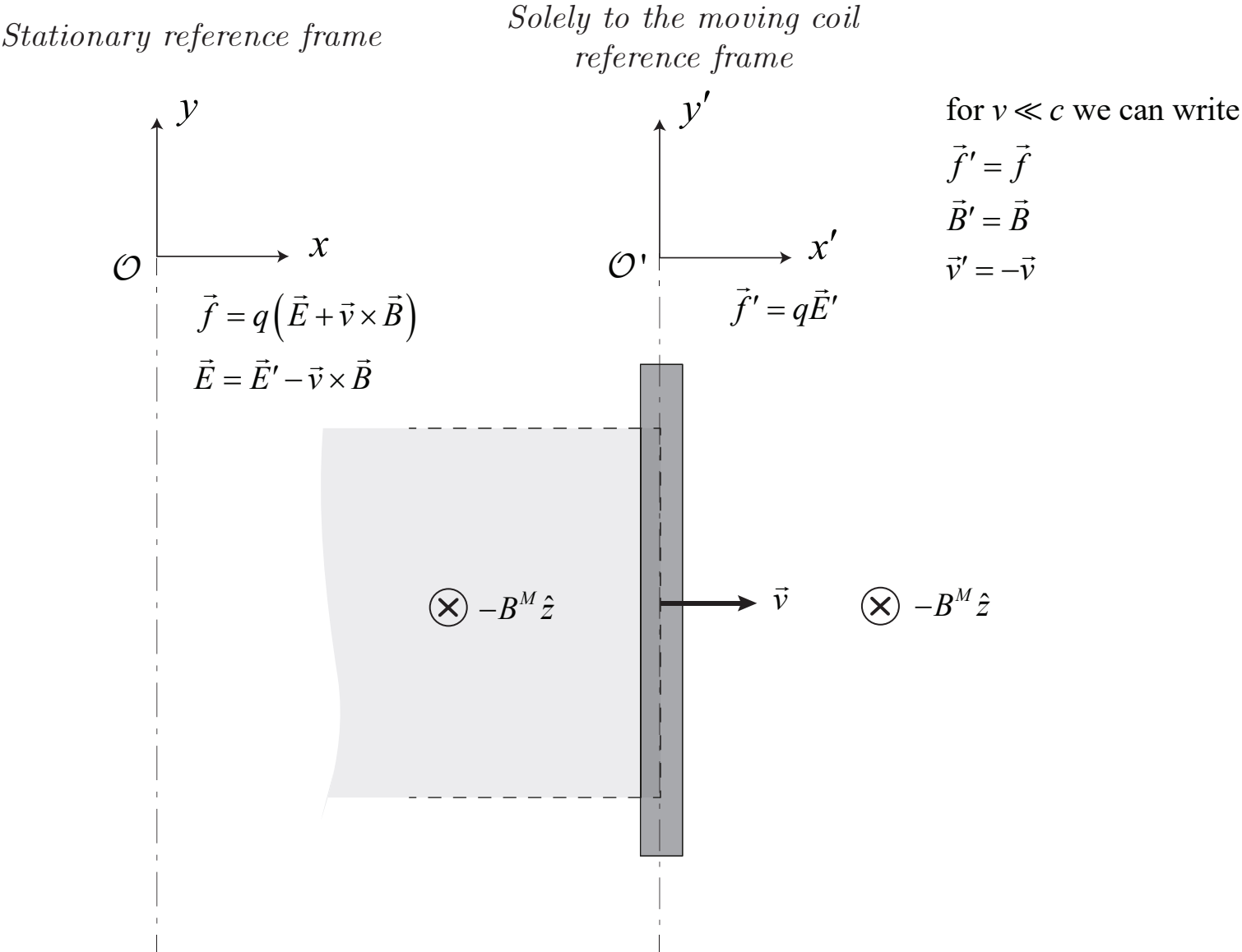
Stationary reference frame
Solely to the moving coil reference frame
y
x
O
y′
x′
O′
$\vec{f} = q\left(\vec{E} + \vec{v} \times \vec{B}\right)$
$\vec{E} = \vec{E}' - \vec{v} \times \vec{B}$
$\vec{f}' = q\vec{E}'$
for $v \ll c$ we can write
$\vec{f}' = \vec{f}$
$\vec{B}' = \vec{B}$
$\vec{v}' = -\vec{v}$
$-B^M \hat{z}$
$\vec{v}$
$-B^M \hat{z}$