

A diagram showing a gray rectangular region on the left, representing a system. The letter 'S' is centered within this region. A horizontal arrow points from the right edge of the gray region towards the right. The label  $e_x$  is placed at the tip of this arrow. To the right of the arrow, the label  $P_{ext}$  is positioned, indicating an external force acting on the system.

S

$e_x$

$P_{ext}$