Symmetry -> Conservation Laws (Theorem 12.1)

Time Translation

$t->t+dt$

Noether

Energy

$H=const$

Space Translation

$x->x+dx$

Noether

Momentum

$p=const$

Rotation

$theta->theta+d_t heta$

Noether

Angular Momentum

$L=const$

U(1) Gauge

$psi->e^{i*theta}*psi$

Noether

Electric Charge

$Q=const$