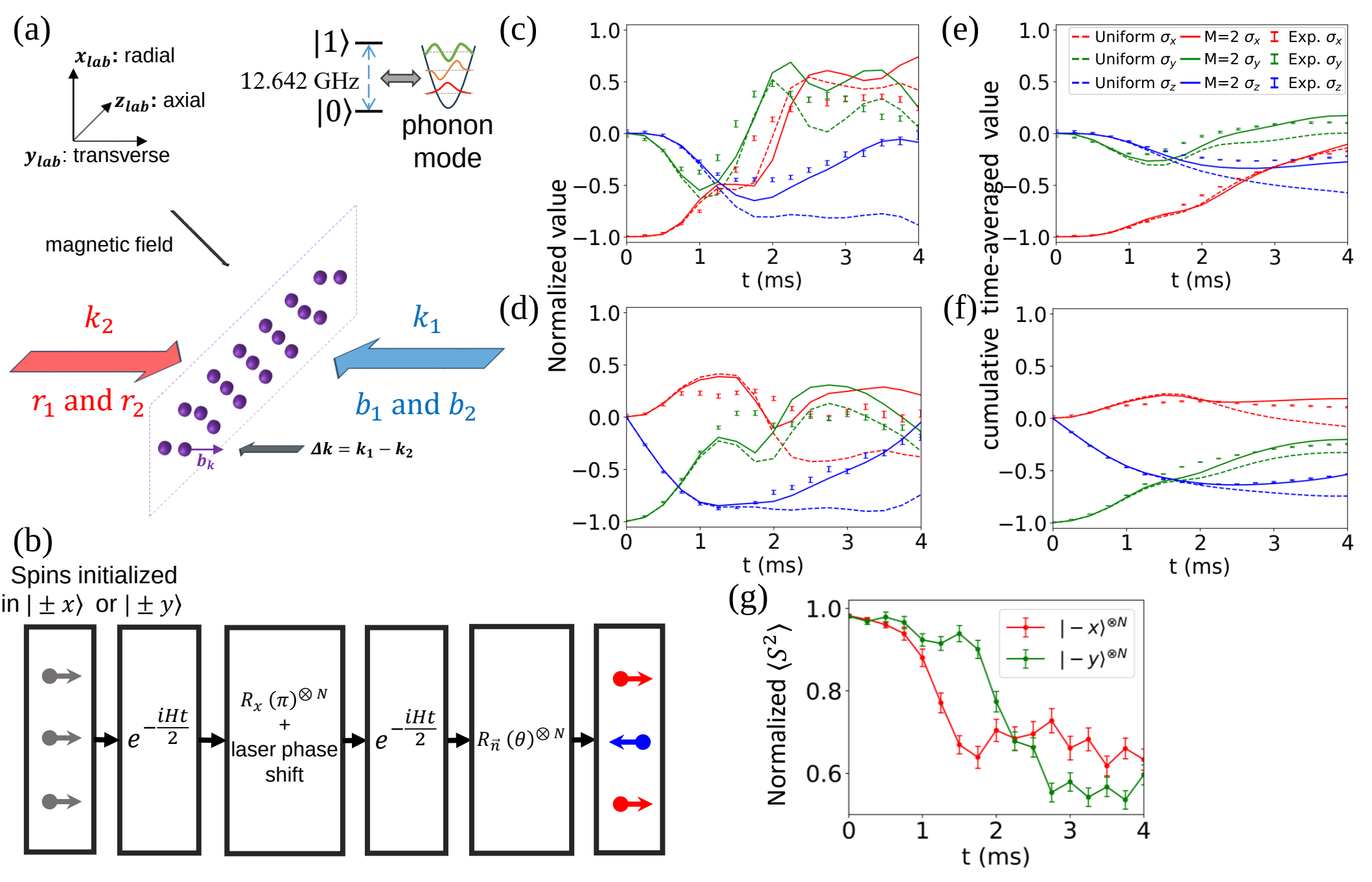

(a)
x_{lab}: radial
z_{lab}: axial
y_{lab}: transverse
|1⟩
12.642 GHz
|0⟩
phonon mode
magnetic field
k_2
k_1
r_1 and r_2
b_1 and b_2
b_k
$\Delta k = k_1 - k_2$
(b)
Spins initialized in $|\pm x\rangle$ or $|\pm y\rangle$
$e^{-\frac{iHt}{2}}$
$R_x(\pi)^{\otimes N}$ + laser phase shift
$e^{-\frac{iHt}{2}}$
$R_{\vec{n}}(\theta)^{\otimes N}$
(c)
Normalized value
t (ms)
(d)
Normalized value
t (ms)
(e)
Uniform σ_x M=2 σ_x Exp. σ_x
Uniform σ_y M=2 σ_y Exp. σ_y
Uniform σ_z M=2 σ_z Exp. σ_z
cumulative time-averaged value
t (ms)
(f)
t (ms)
(g)
Normalized $\langle S^2 \rangle$
$|-x\rangle^{\otimes N}$
$|-y\rangle^{\otimes N}$
t (ms)