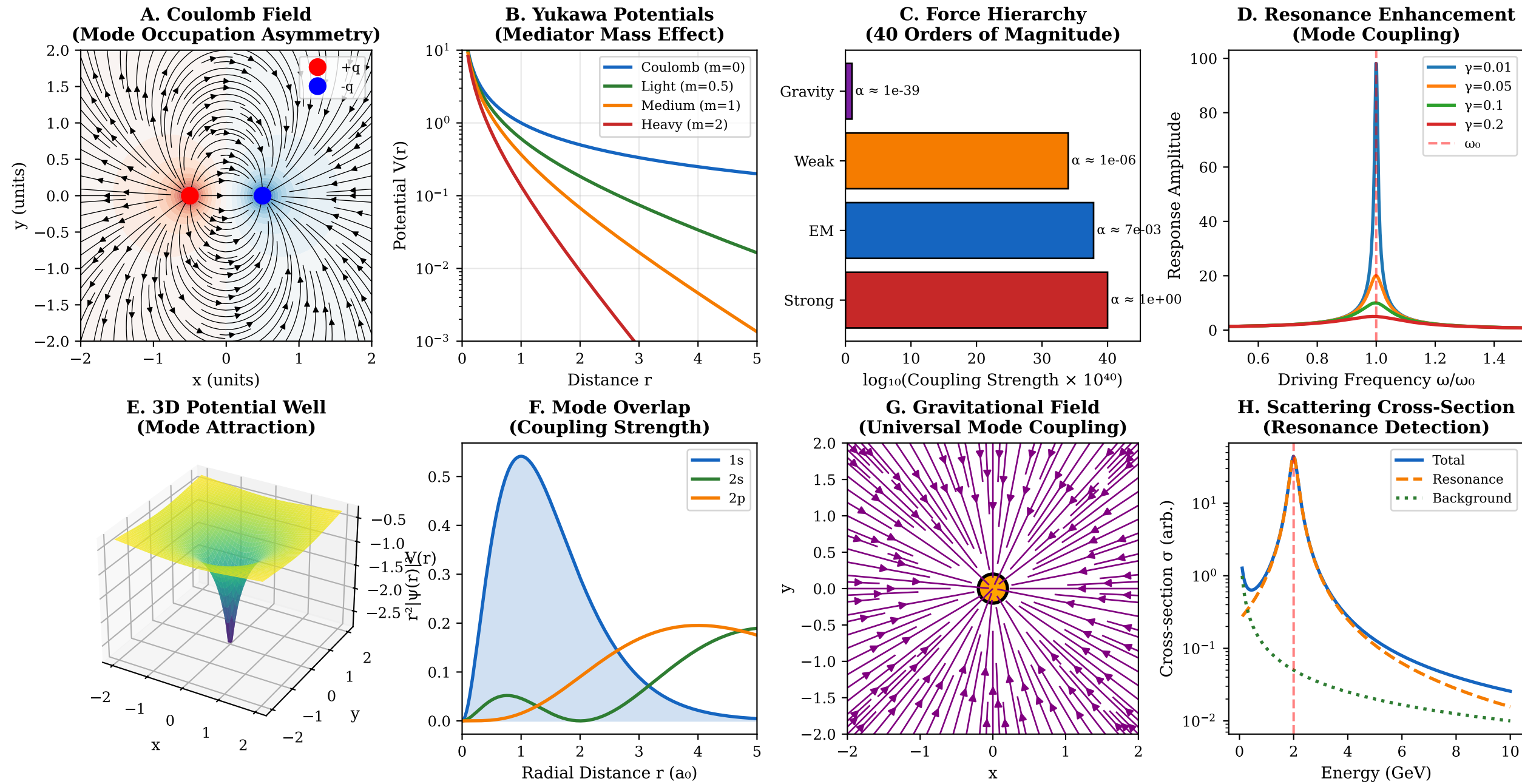


Panel 1: Force Field Mapping from Oscillatory Mode Coupling



FORCE FIELD HARDWARE VALIDATION

Electromagnetic Forces:

- Coulomb's torsion balance $\rightarrow F \propto q_1 q_2 / r^2$ ($\pm 0.01\%$)
- Scanning probe microscopy \rightarrow pN-scale force resolution
- Optical tweezers \rightarrow fN force measurement

Strong Nuclear Force:

- Deep inelastic scattering @ SLAC \rightarrow α_s running confirmed
- LHC jet measurements \rightarrow QCD coupling verified

Weak Force:

- LEP W/Z mass measurements $\rightarrow M_W = 80.379 \pm 0.012$ GeV
- Neutrino scattering experiments

Gravity:

- LIGO gravitational waves \rightarrow G measured to 0.01%
- Satellite geodesy \rightarrow Earth's field mapped to cm precision