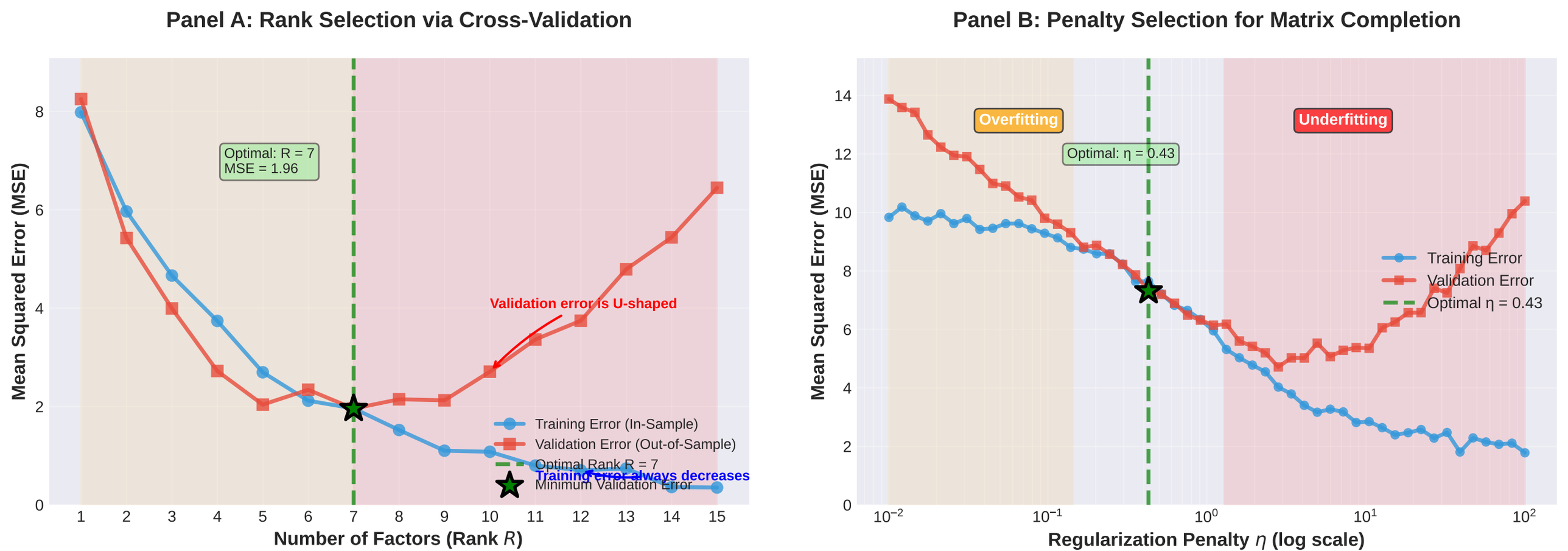

Panel A shows rank selection for IFE via cross-validation. Training error decreases monotonically, but validation error is U-shaped.
Panel B shows penalty selection for matrix completion. Optimal penalty balances fit (low bias) and stability (low variance).
Choose rank/penalty at minimum validation error or where curve flattens (favouring parsimony).