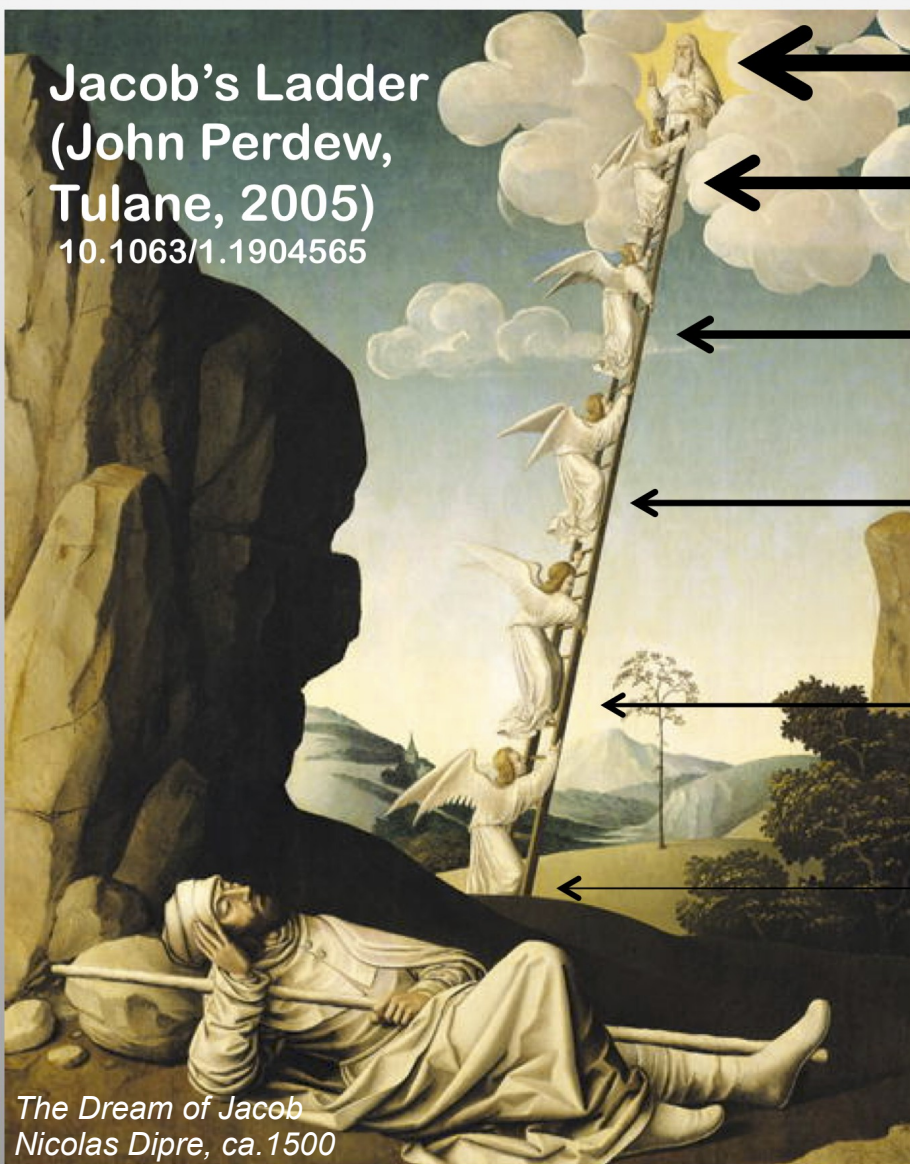


Jacob's Ladder
(John Perdew,
Tulane, 2005)
10.1063/1.1904565



CHEMICAL ACCURACY

Rung 5: random-phase approximation
double hybrid: exchange & correlation

Rung 4: exact exchange/hybrid functionals
hyper-GGA, mixing HF exchange

Rung 3: meta-functionals ($\rho, \nabla\rho, \nabla^2\rho$)
meta GGA

Rung 2: non-local functionals ($\rho, \nabla\rho$)
GGA or pure DFT

Rung 1: local functionals (ρ)
LDA/LSDA

**HF world / reference Ψ
for wave function methods**