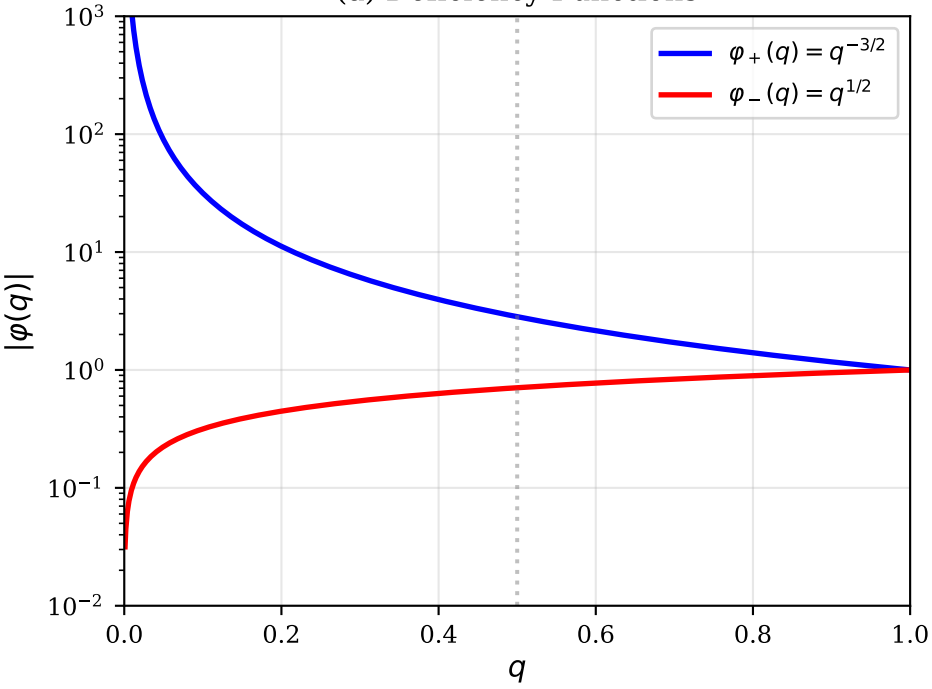
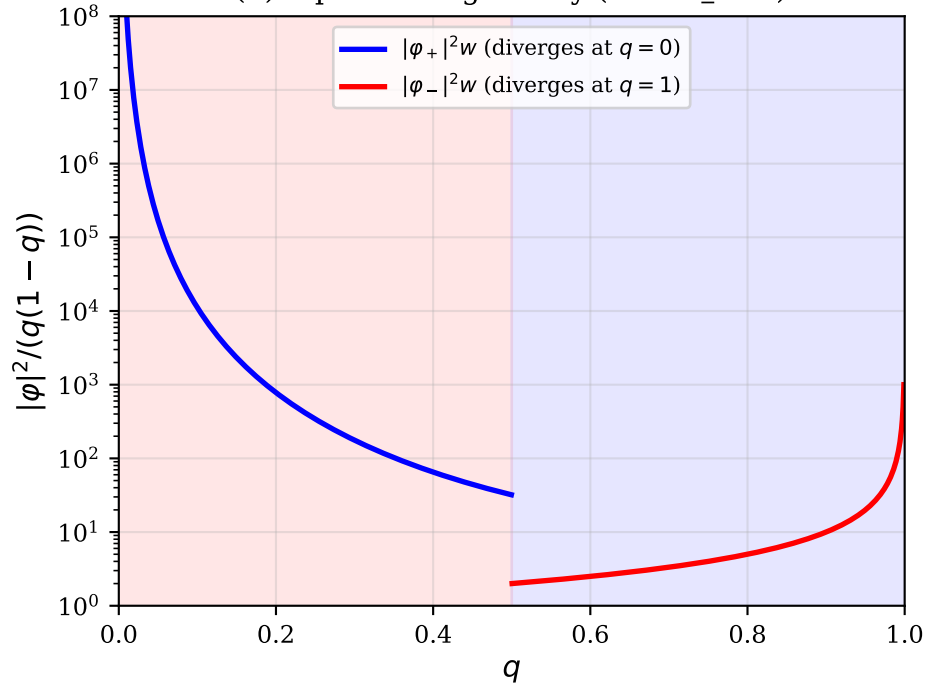

(a) Deficiency Functions
$\varphi_+(q) = q^{-3/2}$
$\varphi_-(q) = q^{1/2}$
$|\varphi(q)|$
q


(b) Square-Integrability (dim $N_\pm = 1$)
$|\varphi_+|^2 w$ (diverges at $q = 0$)
$|\varphi_-|^2 w$ (diverges at $q = 1$)
$|\varphi|^2/(q(1-q))$
q