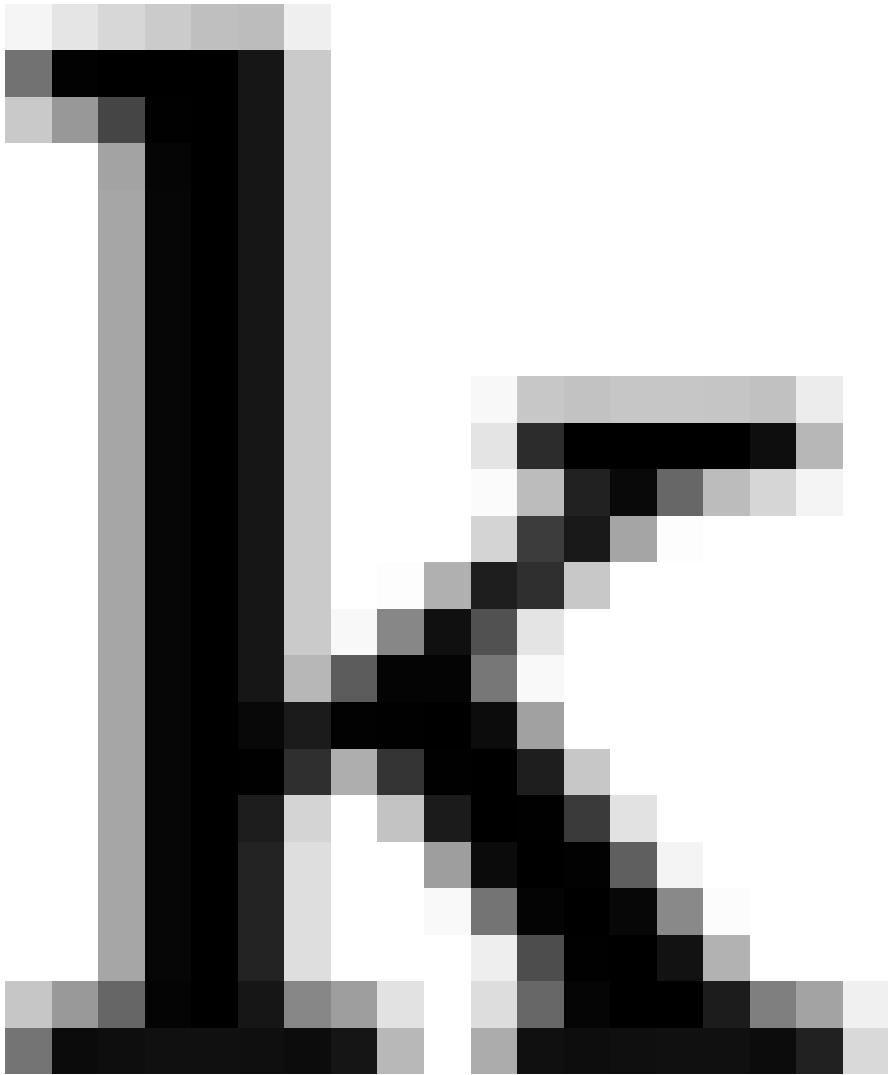
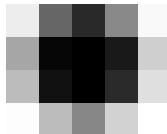
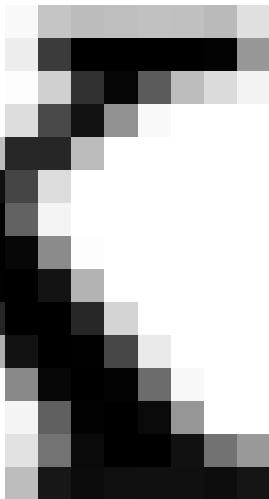
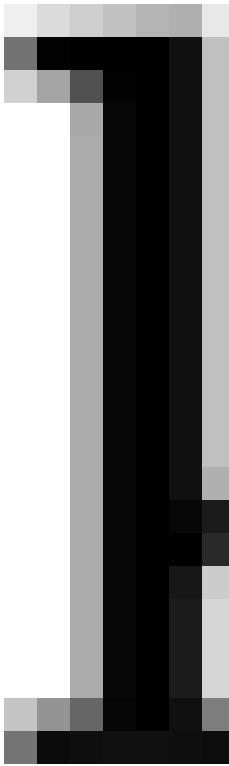
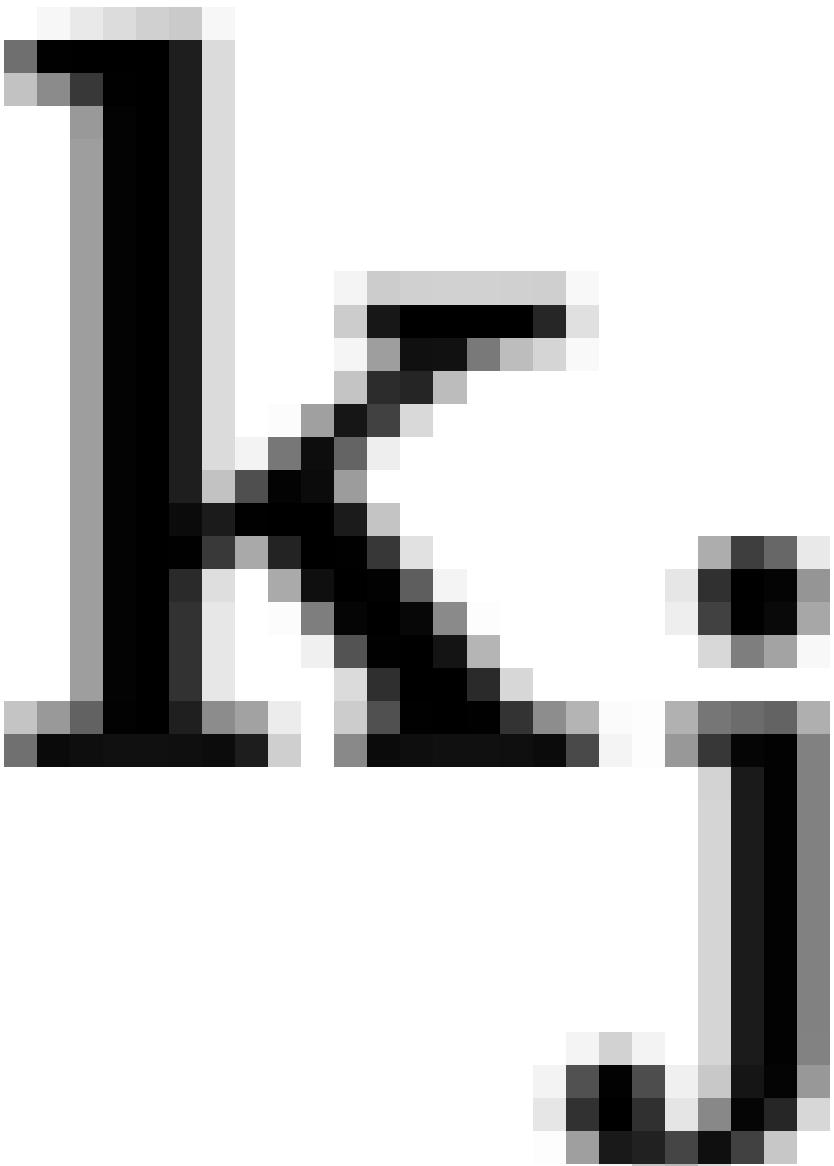
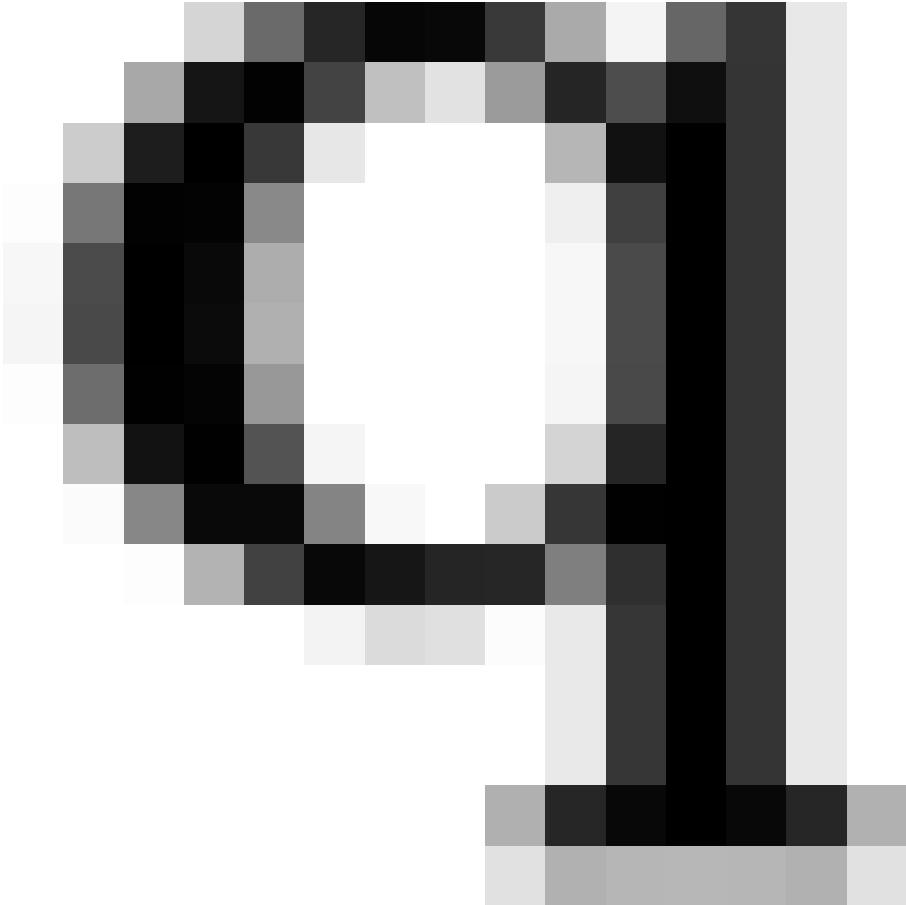


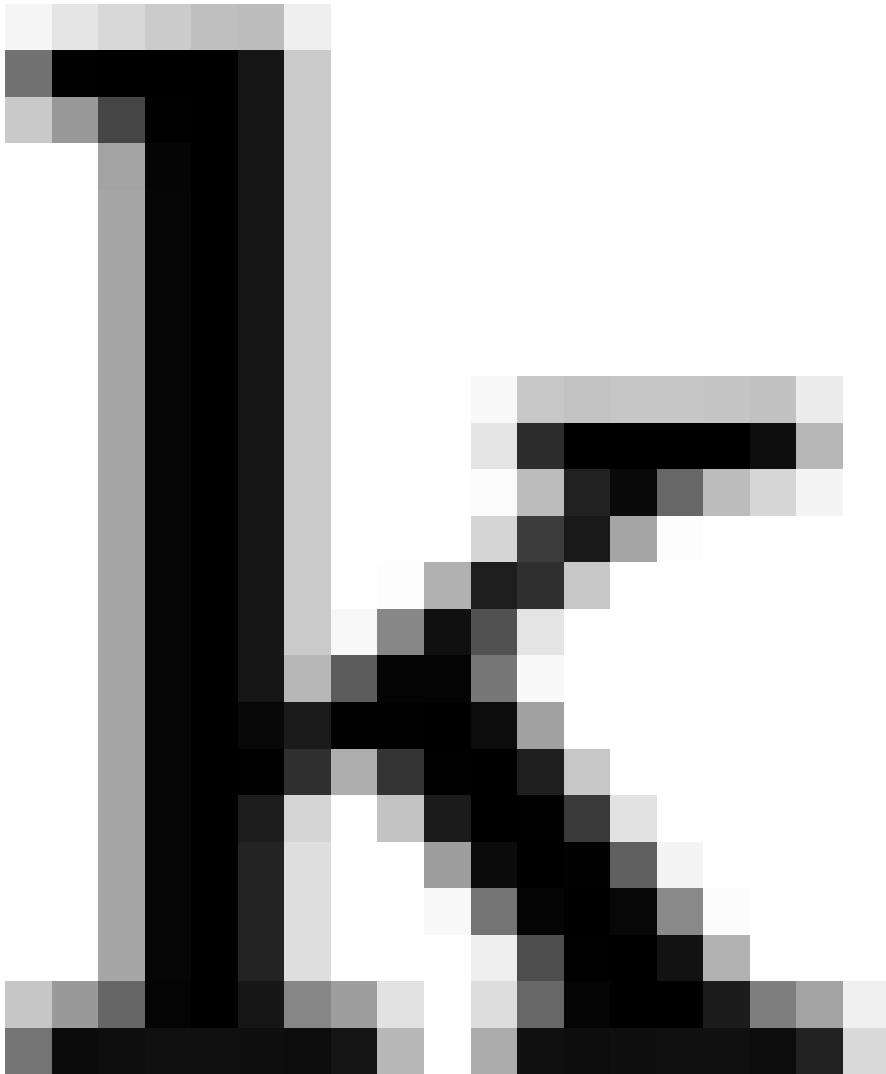
QUANTUM ESPRESSO

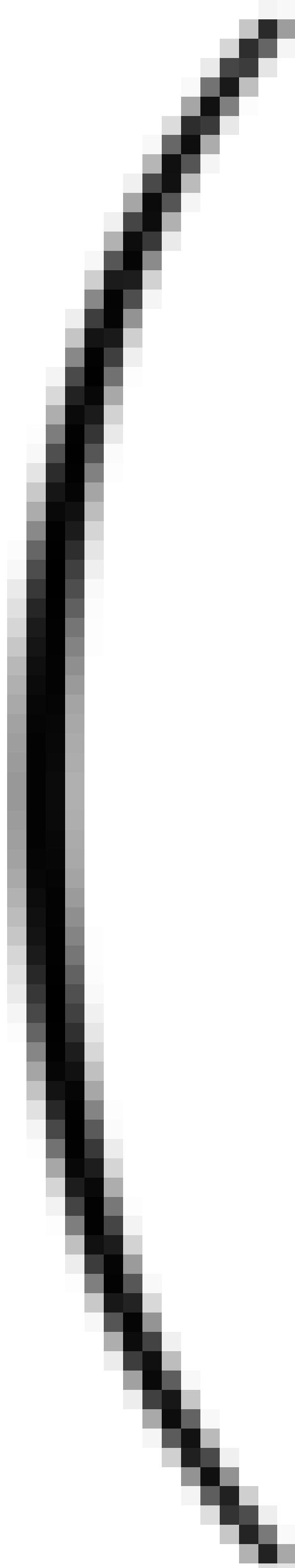












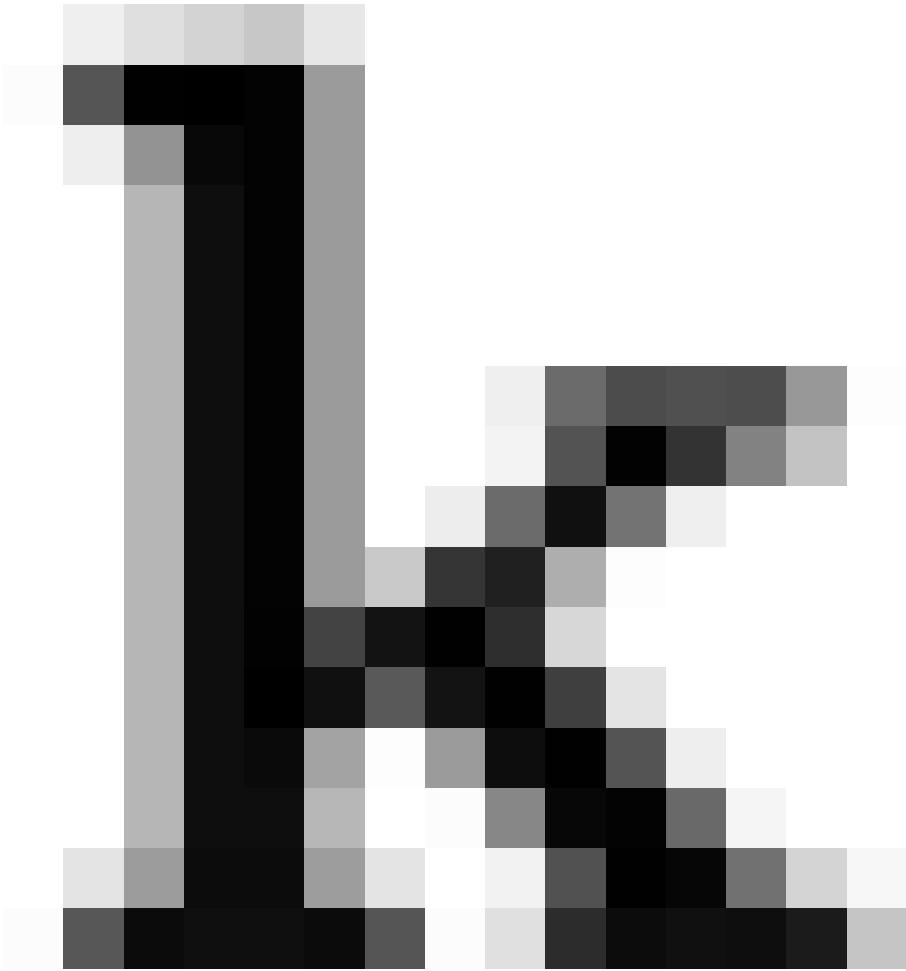
\hbar

$2M\omega_{\text{qu}}$

1

1

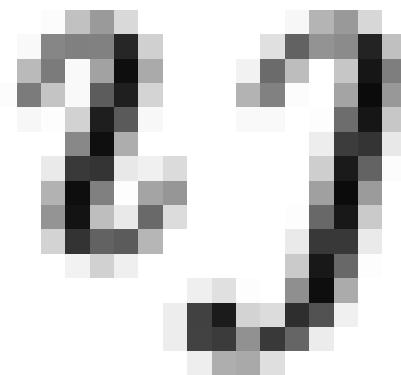
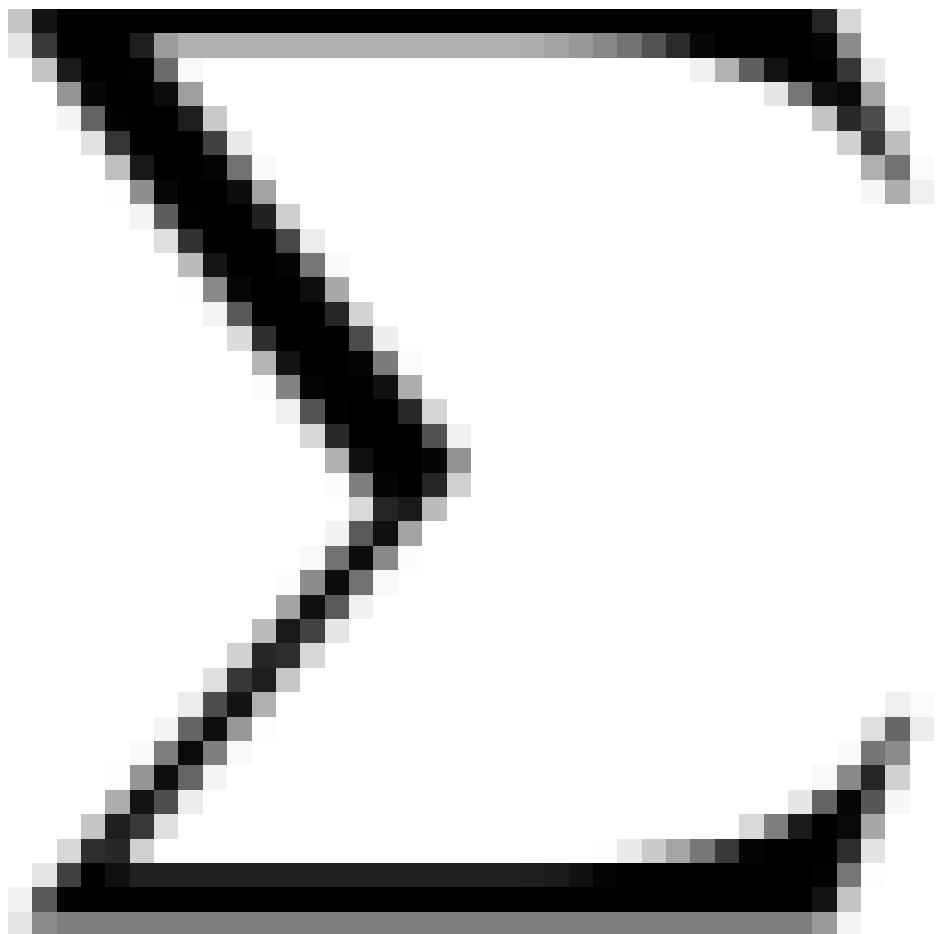
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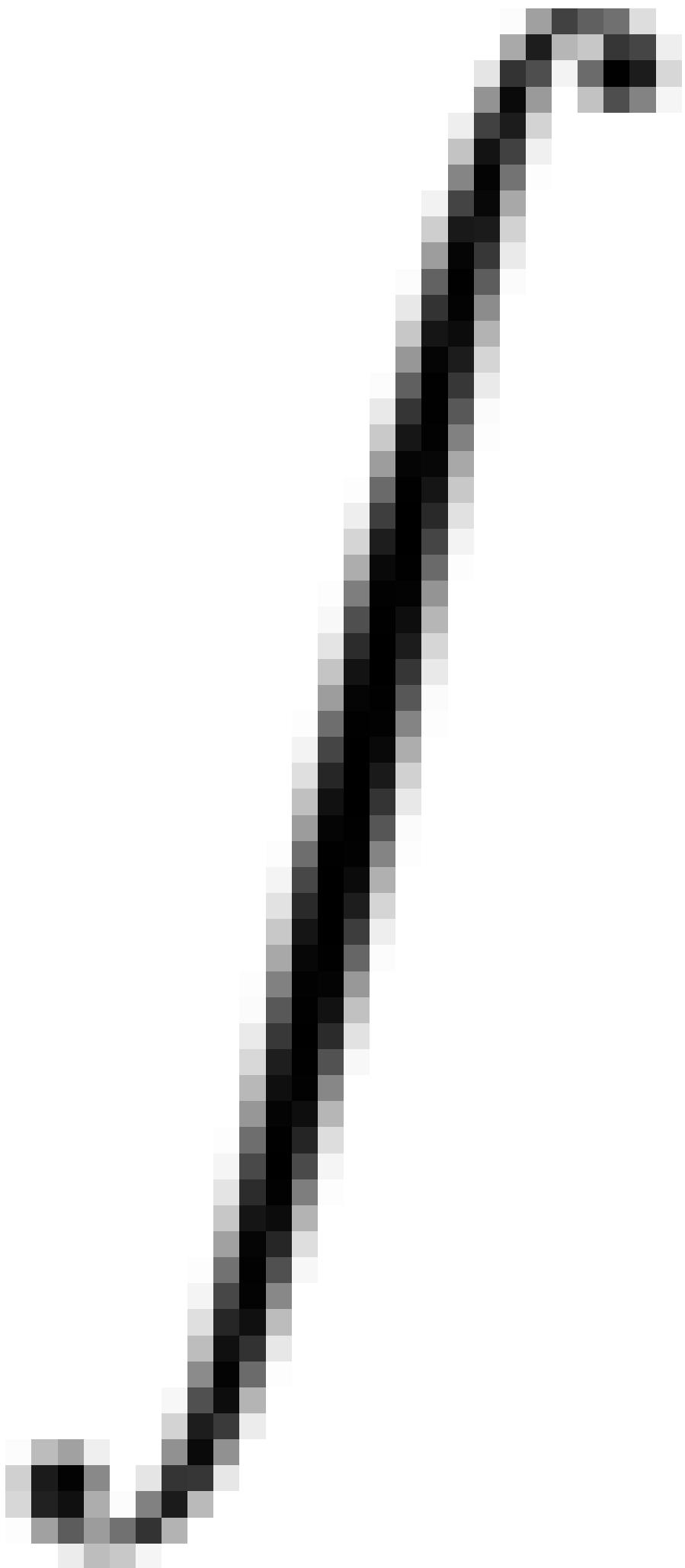


dVSCF

dúgv







$\partial^3 \chi$



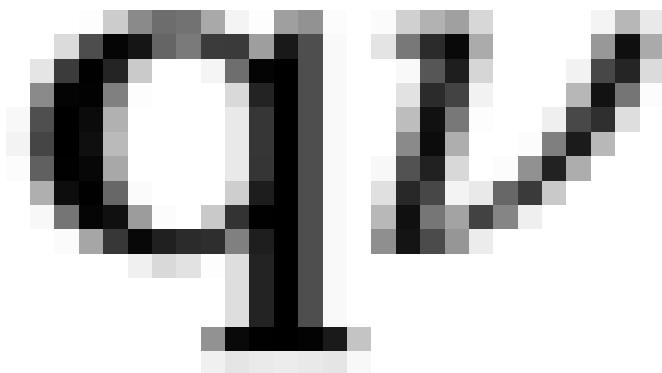
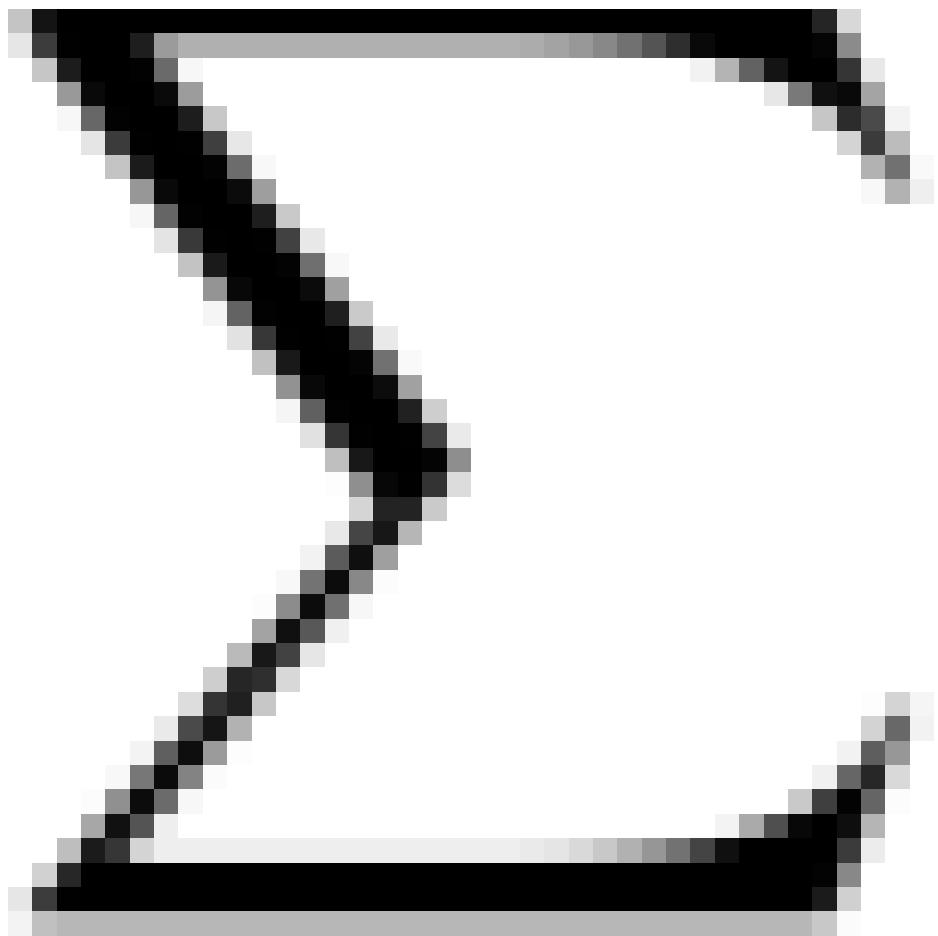
$\Sigma B \Sigma$

γ_{qv}

$\pi \hbar e N(e_F) v^2_{\text{qv}}$

1

$2\pi N(e_F)$

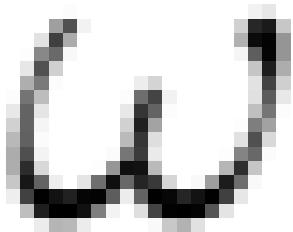


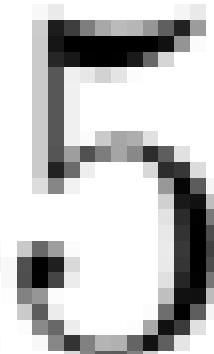
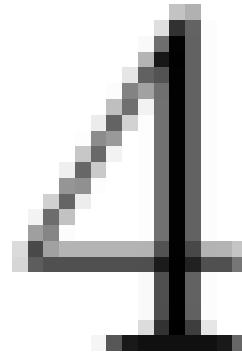
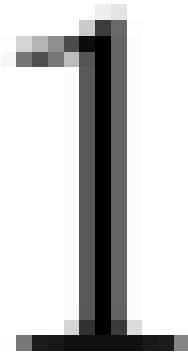
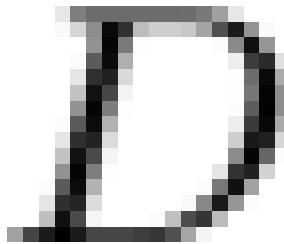
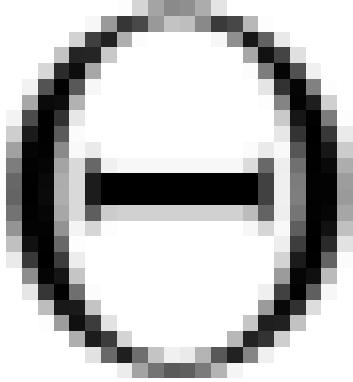
γqv

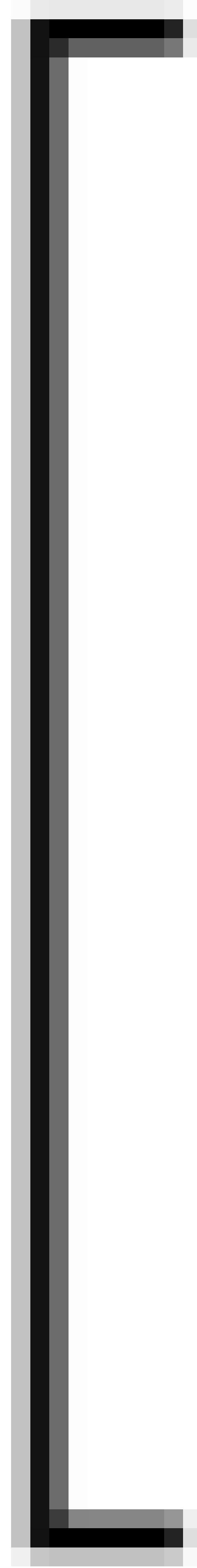


tbγqv

$\alpha^2 E(\omega)$







$$-\frac{1.04(1+\lambda)}{\lambda}$$

$$\lambda(1 - 0.62\mu^*) - \mu^*$$

