

ABSTRACT. We study decoupling in quasi-Banach spaces. We show that decoupling is permissible in some quasi-Banach spaces (e.g., L_p and L_p/H_p when $0 < p < 1$) but fails in other spaces such as the Schatten ideal \mathcal{S}_p when $0 < p < 1$. We also relate our ideas to a possible extension of the Grothendieck inequality.