

$$E_i = E_i \cap V = E_i \cap F_{j_\infty} = [E \cap F]_{(i, j_\infty)} = \bigoplus_{(k, j) \leq (i, j_\infty)} C_{(k, j)} = \sum_{k \leq i} \sum_{j \in J} C_{(k, j)}.$$