

Note: the values contained in  $IA$ ,  $JA$  are (usually) written in terms of the GLOBAL numbering. As we go through  $k = 1 : NZ$  on process  $P$ :

- ① If  $IA(k) \notin P$  then  $IA(k)$ ,  $JA(k)$  and  $VAL(k)$  are ignored (if `psb_matbld_noremove_`) or stashed (if `psb_matbld_remote_`);
- ② If  $IA(k) \in P$  and  $JA(k) \notin P$  then we have a communication requirement that has to be coherent with *DESC*;
- ③ There actually is no need to process (entire) row by (entire) row; the order may be arbitrary (e.g.: all the coefficients associated with an element, coefficient by coefficient, etc).
- ④ It is convenient for performance to group a certain amount of data into a single function call;