

## PROBLEMA PROPOSAT

### PROBLEMA N. 89

Consider  $n$  independent  $(p \times 1)$  vectors  $x_i$  ( $i = 1, \dots, n$ ),  $n \geq p$ , each with the distribution  $\mathcal{N}_p(\mu, V)$ . Define then  $S := (n-1)^{-1} \sum_{i=1}^n (x_i - \bar{x})(x_i - \bar{x})'$ , where  $\bar{x} := n^{-1} \sum_{i=1}^n x_i$ . Find  $E(S^{-1})$ .

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