Calculate sums with [R]

$$\begin{split} \widehat{V_{RR}} &= \frac{\sum\limits_{f} \sum\limits_{1 \leq i, i' \leq m_f; i \neq i'} (n_{fi} - \widehat{\lambda_{fi}}) (n_{fi'} - \widehat{\lambda_{fi'}})}{\sum\limits_{f} \sum\limits_{1 \leq i, i' \leq m_f; i \neq i'} \widehat{\lambda_{fi}} \widehat{\lambda_{fi'}}} \\ \widehat{V_{UU}} &= \frac{\sum\limits_{f, i} \left[(n_{f, i} - \widehat{\lambda_{fi}})^2 - n_{fi} \right]}{\sum\limits_{f, i} \widehat{\lambda_{fi}}^2} \end{split}$$