$- \dim(B+C) - \dim(A+C) + \dim(A+B+C)$.
$\geq \alpha+\beta+\gamma - \dim(B+C) - \dim(A+C) + \dim(A+B+C) - \dim(A+B)$

Since $\dim(B+C)$, $\dim(A+C) \leq k$. and $\dim(A+B) \leq \dim(A+B+C)$, $\geq \alpha+\beta+\gamma-2k = 2k+1-2k = 1$.
$\Rightarrow \dim(A\cap B\cap C) \geq 1$.

Thus $\#(\sigma_a\cdot\sigma_b\cdot\sigma_c) = 0$ in $G(k,n)$ if
$(k-\alpha+a_\alpha)+(k-\beta+b_\beta)+(k-\gamma+c_\gamma) > n-1$,
i.e. if
$$a_\alpha + b_\beta + c_\gamma > n-k.$$

Let $k-\alpha+a_\alpha = x_\alpha$, $k-\beta+b_\beta = y_\beta$, & $k-\gamma+c_\gamma = z_\gamma$.

We can choose V_{n-x_α} and $V'_{y_\beta+n}$ so that
$$\dim(V_{n-x_\alpha}\cap V'_{n-y_\beta}) = n-x_\alpha+n-y_\beta-n = n-(x_\alpha+y_\beta).$$
Choose V_{n-z_γ} so that
$$\dim(V''_{n-z_\gamma}\cap(V_{n-x_\alpha}\cap V'_{n-y_\beta})) = n-z_\gamma - n-(x_\alpha+y_\beta)$$
$$-n = n-(x_\alpha+y_\beta+z_\gamma)$$
Thus if $x_\alpha+y_\beta+z_\gamma \geq n$,
$$\dim(V''_{n-z_\gamma}\cap V_{n-x_\alpha}\cap V'_{n-y_\beta}) = 0$$ so that
$\exists$ no $\Lambda \in \sigma_a(V)\cap\sigma_b(V')\cap\sigma_c(V'')$.

Suppose on the other hand that $a_\alpha+b_\beta+c_\gamma = n-k$, i.e., that generically chosen subspaces $V_{n-k+\alpha-a_\alpha}$, $V'_{n-k+\beta-b_\beta}$, and $V''_{n-k+\gamma-c_\gamma}$ will intersect