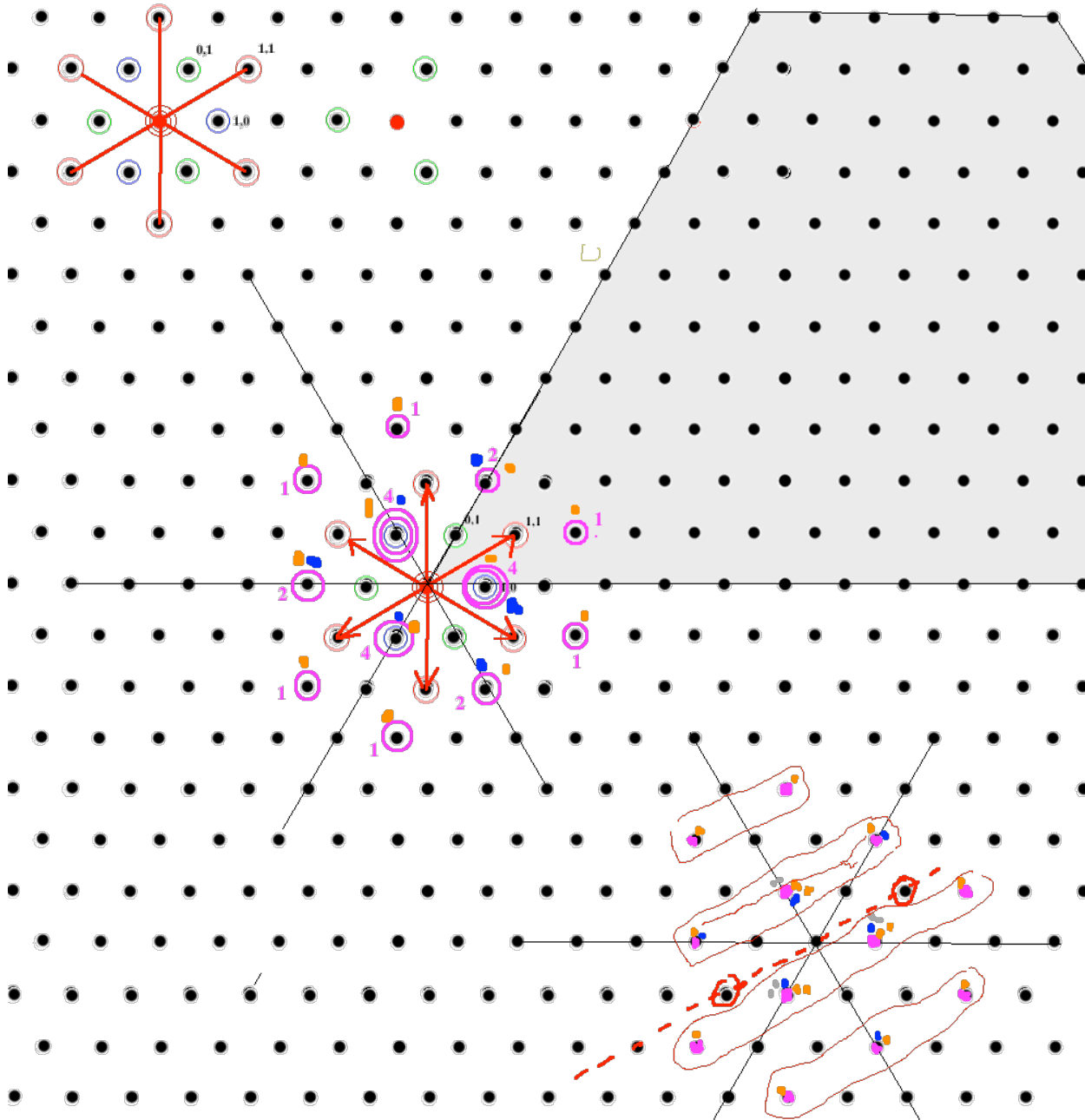


Reticula de raíces de SU(3)

- representación estandar en C^3
- la dual de la C^3
- la repn adjunta de $SU(3)$

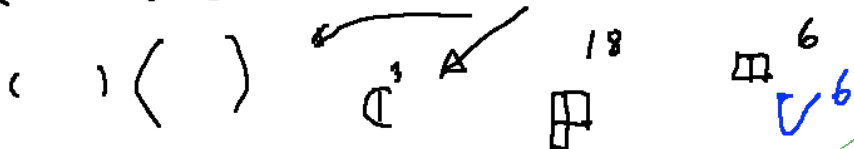


$$(1,1) \otimes (1,0) = (2,1) \oplus (0,2) \oplus (1,0)$$

$$\text{Ad} \otimes \mathbb{C}^3 = V^{15} \oplus V^6 \oplus \mathbb{C}^3$$

$$\left\{ \begin{aligned} \mathbb{C}^3 \otimes \mathbb{C}^3 &= S^2(\mathbb{C}^3) \oplus (\mathbb{C}^3)^* \\ (\mathbb{C}^3)^* \otimes (\mathbb{C}^3)^* &= S^2(\mathbb{C}^3)^* \oplus \mathbb{C}^3 \end{aligned} \right.$$

$$\begin{aligned} (\mathbb{C}^3 \otimes (\mathbb{C}^3)^* - \mathbb{C}) \otimes \mathbb{C}^3 &= \mathbb{C}^3 \otimes \mathbb{C}^3 \otimes (\mathbb{C}^3)^* - \mathbb{C}^3 = \\ &= (S^2(\mathbb{C}^3) \oplus \wedge^2 \mathbb{C}^3) \otimes (\mathbb{C}^3)^* - \mathbb{C}^3 = \\ &= [S^2(\mathbb{C}^3) \otimes (\mathbb{C}^3)^*] \oplus (\mathbb{C}^3)^* - \mathbb{C}^3 = S^2(\mathbb{C}^3) \otimes (\mathbb{C}^3)^* + S^2(\mathbb{C}^3)^* \otimes \mathbb{C}^3 - \mathbb{C}^3 \end{aligned}$$



Rep's of grupos de Lie gp

truncuntatio de Weyl

Grupos simples $sl_2(\mathbb{R}), sl_2(\mathbb{C})$

$sl_2(\mathbb{C})$

SU_2

$sl_2(\mathbb{R})$

Diagramas de Young

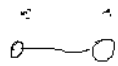
prox. case!



?

?

?



$sl_3(\mathbb{C})$

SU_3

$SU_{2,1}$

$sl_3(\mathbb{R})$