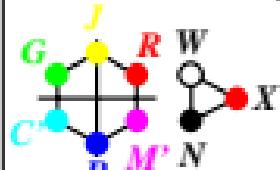


# Relative hexagon metric based on 3 elementary colours $rgb^*_3$



$0 \leq r^*_3, g^*_3, b^*_3, c^*_{RGB}, l^* \leq 1$  for standard device SRS00

Triangle coordinates  $rgb^*_3$  with hue angles 30, 150, 270 degree

$$X = RJGC'BM'$$

relative chroma

$$c^*_{RGB} = \max(r^*_3, g^*_3, b^*_3) - \min(r^*_3, g^*_3, b^*_3)$$

relative blackness

$$n^*_{RGB} = 1 - \max(r^*_3, g^*_3, b^*_3)$$

relative triangle lightness

$$l^*_{RGB} = 1 - n^*_{RGB} - 0,5 c^*_{RGB}$$

relative rg-chroma

$$a^*_{RGB} = \cos(30)r^*_3 + \cos(150)g^*_3$$

relative jb-chroma

$$b^*_{RGB} = \sin(30)r^*_3 + \sin(150)g^*_3 + \sin(270)b^*_3$$

hue angle

$$h^*_{RGB} = \text{atan} [ b^*_{RGB} / a^*_{RGB} ]$$