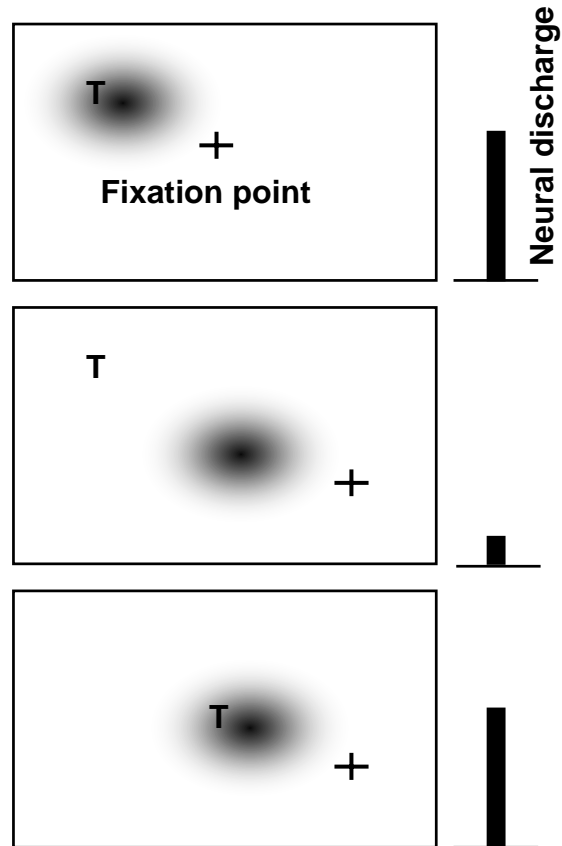
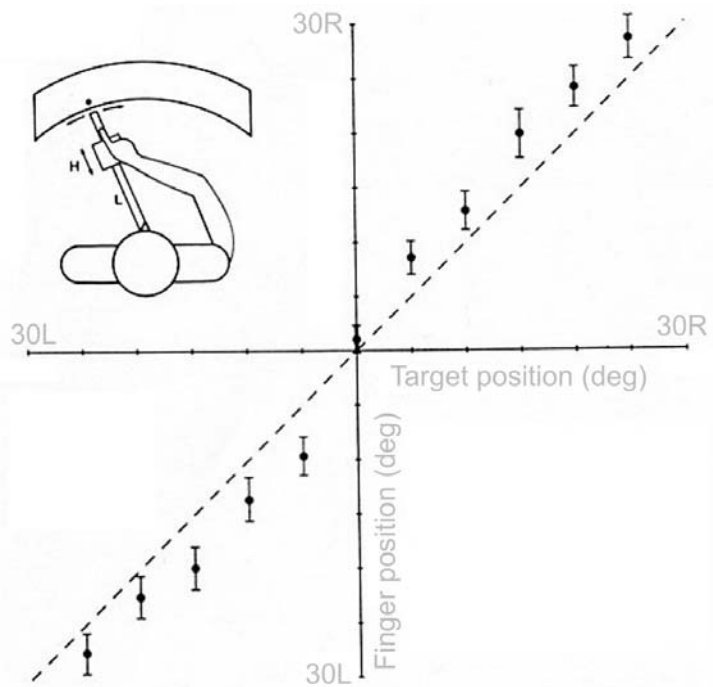
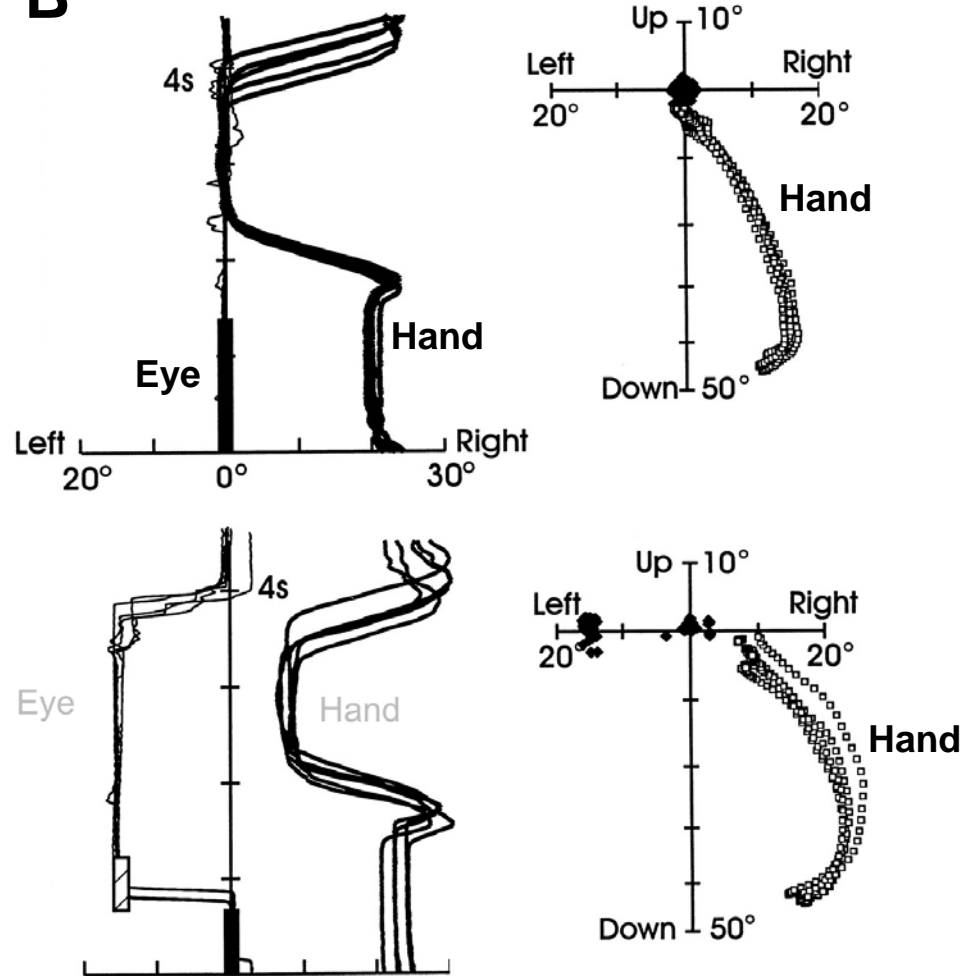
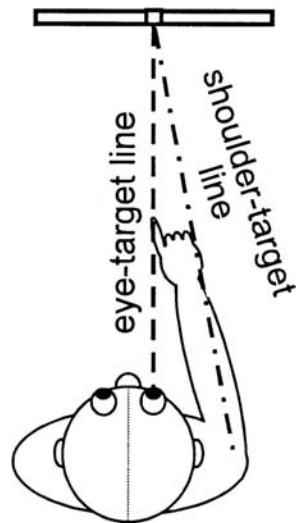


A retinotopic receptive field

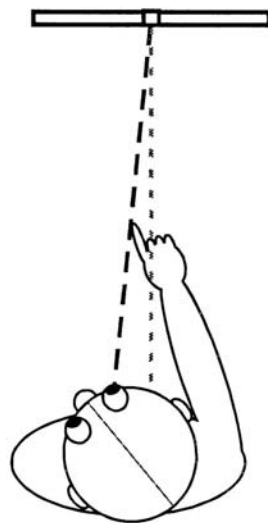


1. Representing target location in fixation centered coordinates.
2. Remapping due to intervening head/eye movements.

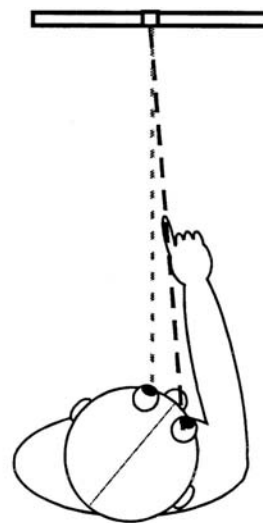
A**B**



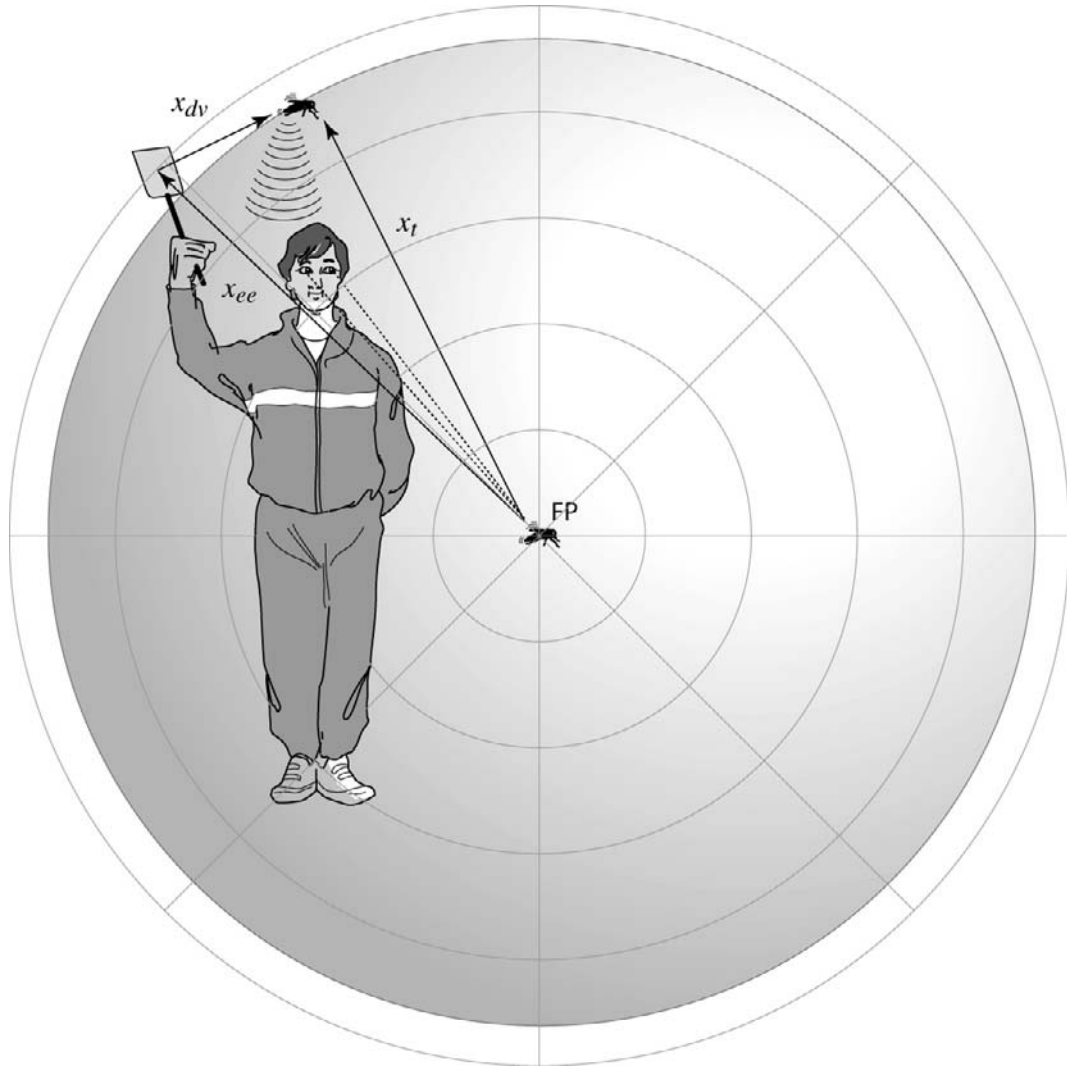
Head
Center



Head
40° Left

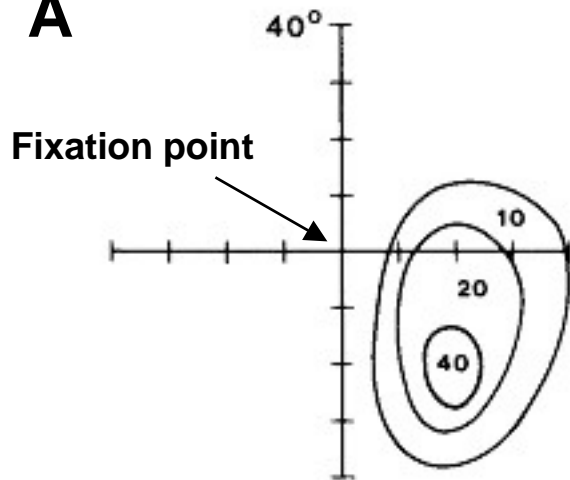


Head
40° Right

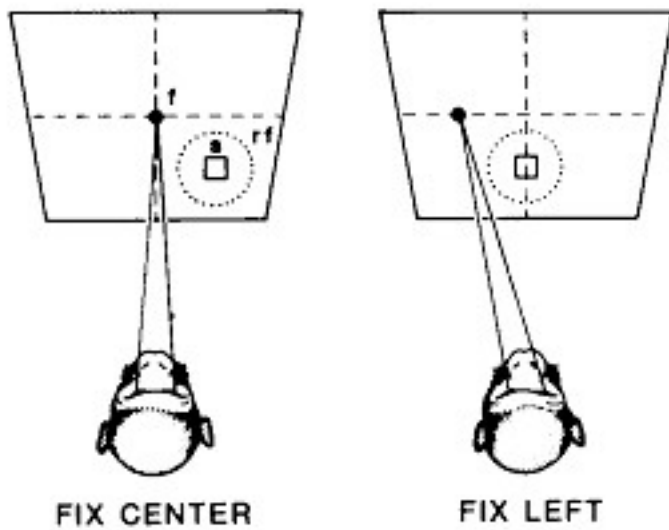


$$\exp \frac{-(r-r_i)^T (r-r_i)}{2\sigma^2}$$

A

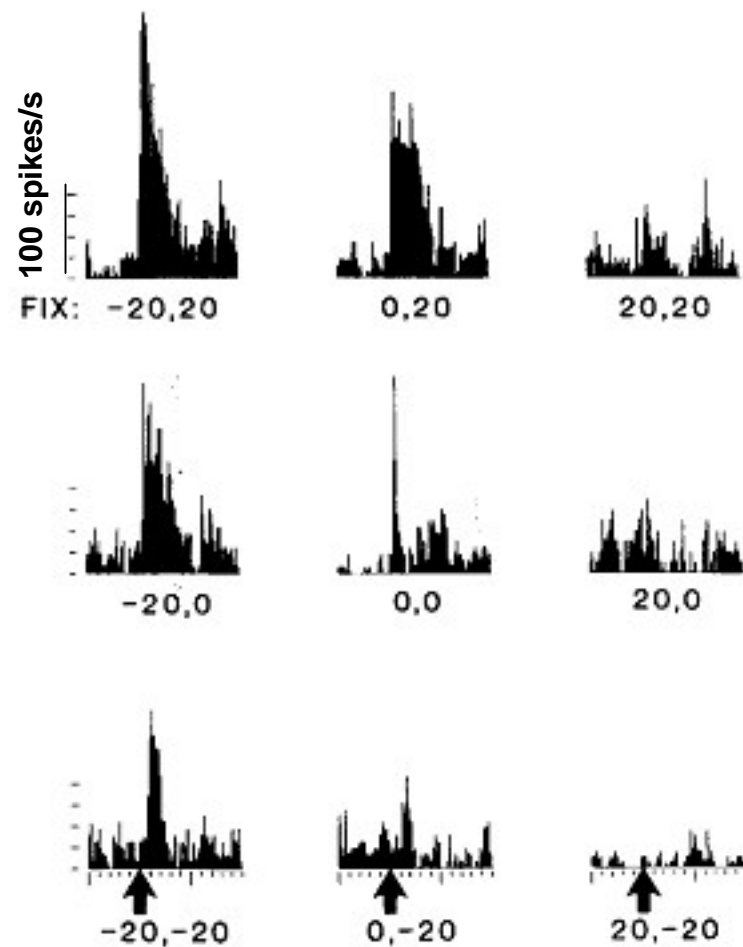


B

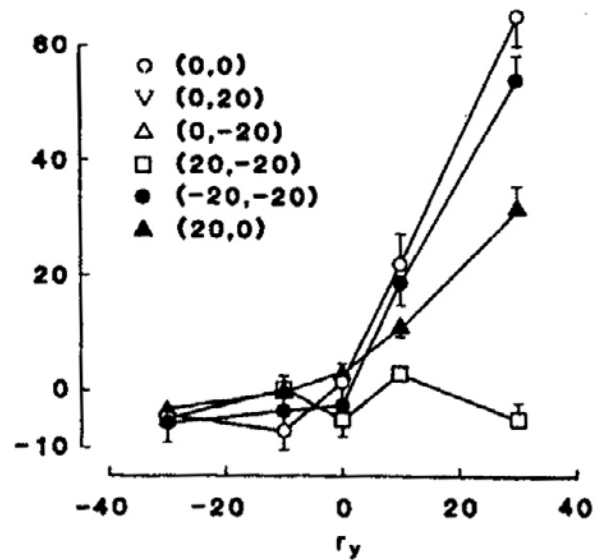
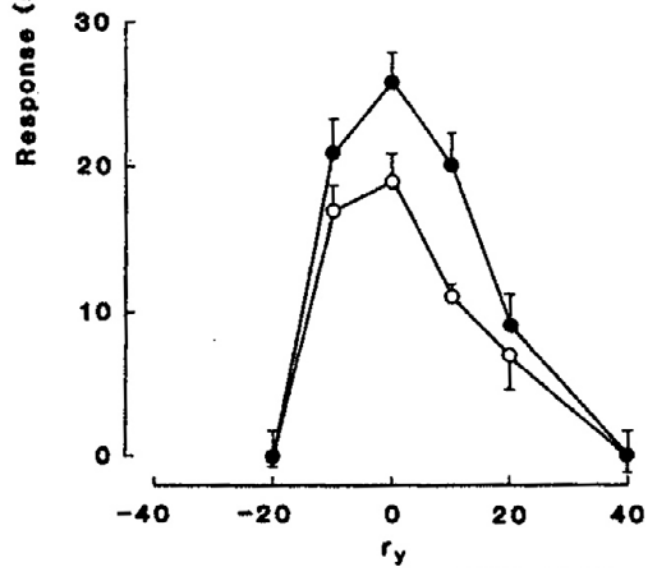
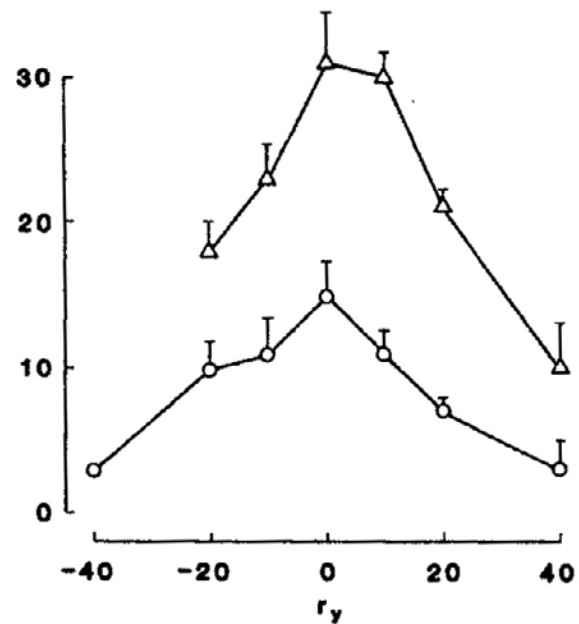
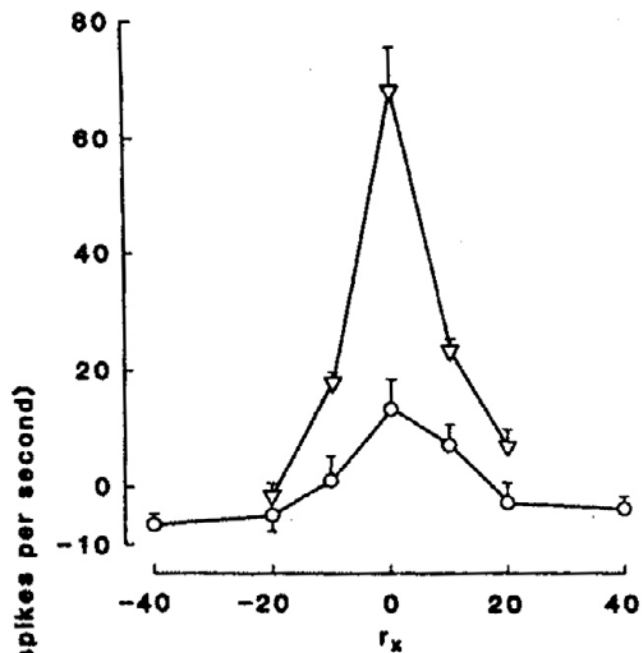


C

ALL STIM. RETINAL (20,-20)

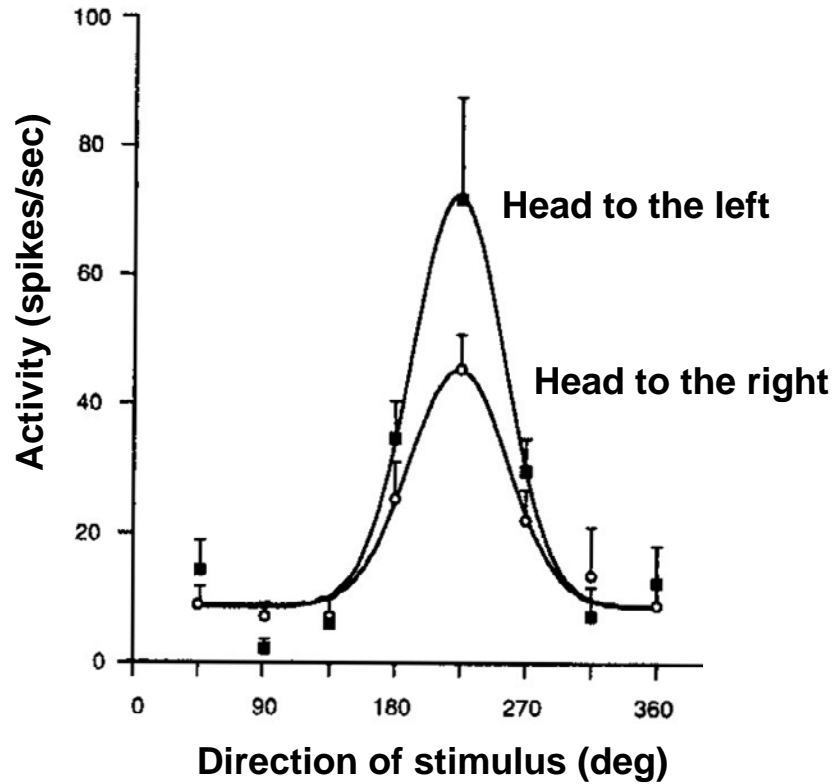


$$p_i = (k_i^T e + b_i) \exp \frac{-(r - r_i)^T (r - r_i)}{2\sigma^2}$$



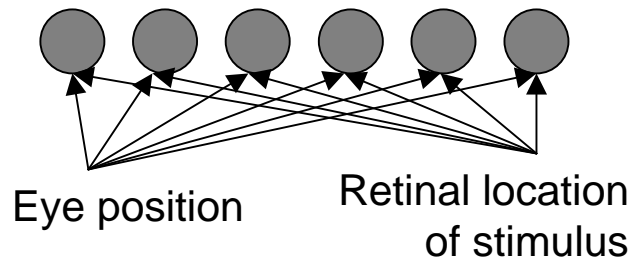
Retinotopic position (degrees)

Multiplicative encoding of head and eye position in the retinotopic receptive field

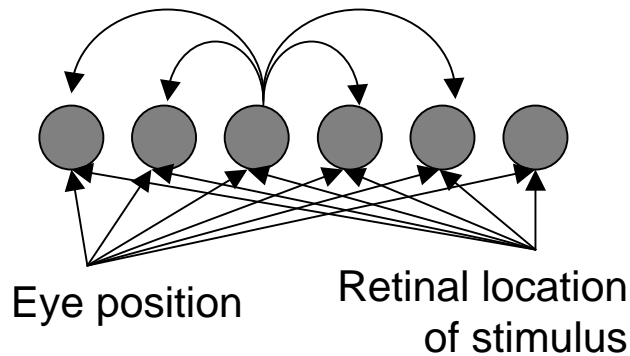


$$p_i = (k_i^T e + a_i)(c_i^T h + b_i) \exp \frac{-(r - r_i)^T (r - r_i)}{2\sigma^2}$$

Origin of multiplicative combination of variables in neuronal discharge



$$p_i = s \left[(k_i e + b_i) + \exp \frac{-(r - r_i)^2}{2\sigma^2} - \beta \right]_+$$



$$p_i(t) = s \left[(k_i e + b_i) + \exp \frac{-(r - r_i)^2}{2\sigma^2} + \sum_j w_{ij} p_j(t - \Delta) - \beta \right]_+$$

