

Shouji Rating System V3.4

Formulas

$$A\mu = 1500$$

$$B\mu = 1500$$

$$A\phi = 0.64$$

$$B\phi = 0.64$$

$$A\sigma = 0$$

$$B\sigma = 0$$

$$\beta = 400$$

$$\alpha = 0.5$$

$$C = \text{mean}(A\phi, B\phi, AT, BT) * \beta$$

$$Af = A\mu ** \text{mean}(\alpha, AT)$$

$$Bf = B\mu ** \text{mean}(\alpha, BT)$$

$$AT = A\mu / (A\mu * \alpha + A\mu)$$

$$BT = B\mu / (B\mu * \alpha + B\mu)$$

$$A^o = 1 / (1 + \exp((B\mu - A\mu) / C))$$

$$B^o = 1 / (1 + \exp((A\mu - B\mu) / C))$$

$$A\emptyset, 1 = \text{Win}, 0.5 = \text{Draw}, 0 = \text{Loss}.$$

$$B\emptyset, 1 = \text{Win}, 0.5 = \text{Draw}, 0 = \text{Loss}.$$

$$A\mu' = A\mu + Af ** A\phi * (A\emptyset - A^o) + Af ** A\phi * A\sigma$$

$$B\mu' = B\mu + Bf ** B\phi * (B\emptyset - B^o) + Bf ** B\phi * B\sigma$$

$$A\phi' = (A\phi * AT) ** (1 - |A\sigma|)$$

$$B\phi' = (B\phi * BT) ** (1 - |B\sigma|)$$