MEMBRANSKA TEORIJA LJUSKI
ROTACIONO SIMETRICNO OPTERECENJE:

$$(1)\ \frac{dN_q}{dq}R1+\frac{d}{dj}(N_{jq}R0)+N_{jq}R1\cos j\ +XR0R1=0$$

$$(2)\ \frac{d}{dj}(N_j R0)+\frac{dN_{jq}}{dq}R1-N_q R1\cos j\ +YR0R1=0$$ PROIZVOLJNI OPT.

$$(3)\ \frac{N_j}{R1}+\frac{N_q}{R2}+Z=0$$

-rotaciono simetricno opterecenje-

$X\equiv 0; Y, Z=f(j); N_{jq}=0$

SFERA

$$P(j)=\int_0^j (Z\cos j\ +Y\sin j\ )R1\cdot R0\cdot 2p\ \cdot dj$$

$$Nj\ =-\frac{P(j)}{2pRo\sin j}$$

$$Nq=-\left(\frac{Nj}{R1}+Z\right)\cdot R2$$

KONUS

$$P(z)=2p\ \frac{tga}{\cos a}\int_0^z (Z\sin a\ +Y\cos a\ )\cdot z\cdot dz$$

$$Nj\ =-\frac{P(z)}{2pRo\cos a}$$

$$Nq=-\left(\frac{Nj}{R1}+Z\right)\cdot R2$$

α - ugao u „vrhu“ konusa

ROTACIONO SIMETRICNA DEFORMACIJA
ROTACIONO SIMETRICNE LJUSKE

$$ej = \frac{1}{Eh}(Nj - uNq) = \frac{1}{R1}\left(\frac{dv}{dj} - w\right)$$

$$eq = \frac{1}{Eh}(Nq - uNj) = \frac{dRo}{Ro} = \frac{1}{R2}(v \cdot ctgj - w)$$

$$c = \frac{1}{R1}\left(v + \frac{dw}{dj}\right)$$

$$v = \left\{\int \frac{1}{Eh}[Nj \cdot R1 + uR2 - Nq \cdot R2 + uR1]\frac{dj}{\sin j} + C\right\} \cdot \sin j$$