

# Steklov-Poincaré-Operator: = D2N:

Ass.:  $\exists V^{-1}: Y := H^{1/2}(\Gamma) \rightarrow X := H^{-1/2}(\Gamma)$

2D: ?  
3D: OK

(8)a)  $Vv = \left(\frac{1}{2}I + K\right)u$

(9)a)  $v = \underbrace{V^{-1}\left(\frac{1}{2}I + K\right)}_S u = Su$

$\therefore S = \text{non-symmetric D2N map!}$

(8)a)  $\rightarrow$  (8)b)

(9)b)  $v = Du + \left(\frac{1}{2}I + K'\right)v =$

$= \underbrace{\left(D + \left(\frac{1}{2}I + K'\right)V^{-1}\left(\frac{1}{2}I + K\right)\right)}_S u = Su$

$\therefore S = \text{symmetric D2N map!}$