

Drehmatrix, Euler-Winkel

$$D = \begin{pmatrix} \cos(\varphi) \cos(\psi) - \sin(\varphi) \cos(\vartheta) \sin(\psi) & , & -\cos(\varphi) \sin(\psi) - \sin(\varphi) \cos(\vartheta) \cos(\psi) & , & \sin(\varphi) \sin(\vartheta) \\ \sin(\varphi) \cos(\psi) + \cos(\varphi) \cos(\vartheta) \sin(\psi) & , & -\sin(\varphi) \sin(\psi) + \cos(\varphi) \cos(\vartheta) \cos(\psi) & , & -\cos(\varphi) \sin(\vartheta) \\ \sin(\vartheta) \sin(\psi) & , & \sin(\vartheta) \cos(\psi) & , & \cos(\vartheta) \end{pmatrix}$$