$$\left[\begin{matrix}- \frac{\sin{\left(\theta_{1} \right)} \sin{\left(\theta_{2} \right)} \sin{\left(\overline{\theta_{2}} \right)} + \sin{\left(\overline{\theta_{1}} \right)} \cos{\left(\theta_{2} \right)} \cos{\left(\overline{\theta_{2}} \right)}}{a_{2} \sin{\left(\theta_{2} \right)} \sin{\left(\overline{\theta_{2}} \right)} \cos{\left(\theta_{2} \right)} + a_{2} \cos^{2}{\left(\theta_{2} \right)} \cos{\left(\theta_{1} - \overline{\theta_{1}} \right)} \cos{\left(\overline{\theta_{2}} \right)} + a_{3} \sin{\left(\theta_{2} \right)} \sin{\left(\overline{\theta_{2}} \right)} \cos{\left(\theta_{2} \right)} + a_{3} \cos^{2}{\left(\theta_{2} \right)} \cos{\left(\theta_{1} - \overline{\theta_{1}} \right)} \cos{\left(\overline{\theta_{2}} \right)} + d_{1} \sin{\left(\theta_{2} \right)} \sin{\left(\overline{\theta_{2}} \right)} + d_{1} \cos{\left(\theta_{2} \right)} \cos{\left(\theta_{1} - \overline{\theta_{1}} \right)} \cos{\left(\overline{\theta_{2}} \right)}} & \frac{\sin{\left(\theta_{2} \right)} \sin{\left(\overline{\theta_{2}} \right)} \cos{\left(\theta_{1} \right)} + \cos{\left(\theta_{2} \right)} \cos{\left(\overline{\theta_{1}} \right)} \cos{\left(\overline{\theta_{2}} \right)}}{a_{2} \sin{\left(\theta_{2} \right)} \sin{\left(\overline{\theta_{2}} \right)} \cos{\left(\theta_{2} \right)} + a_{2} \cos^{2}{\left(\theta_{2} \right)} \cos{\left(\theta_{1} - \overline{\theta_{1}} \right)} \cos{\left(\overline{\theta_{2}} \right)} + a_{3} \sin{\left(\theta_{2} \right)} \sin{\left(\overline{\theta_{2}} \right)} \cos{\left(\theta_{2} \right)} + a_{3} \cos^{2}{\left(\theta_{2} \right)} \cos{\left(\theta_{1} - \overline{\theta_{1}} \right)} \cos{\left(\overline{\theta_{2}} \right)} + d_{1} \sin{\left(\theta_{2} \right)} \sin{\left(\overline{\theta_{2}} \right)} + d_{1} \cos{\left(\theta_{2} \right)} \cos{\left(\theta_{1} - \overline{\theta_{1}} \right)} \cos{\left(\overline{\theta_{2}} \right)}} & \frac{\sin{\left(\theta_{2} \right)} \sin{\left(\theta_{1} - \overline{\theta_{1}} \right)} \cos{\left(\overline{\theta_{2}} \right)}}{a_{2} \sin{\left(\theta_{2} \right)} \sin{\left(\overline{\theta_{2}} \right)} \cos{\left(\theta_{2} \right)} + a_{2} \cos^{2}{\left(\theta_{2} \right)} \cos{\left(\theta_{1} - \overline{\theta_{1}} \right)} \cos{\left(\overline{\theta_{2}} \right)} + a_{3} \sin{\left(\theta_{2} \right)} \sin{\left(\overline{\theta_{2}} \right)} \cos{\left(\theta_{2} \right)} + a_{3} \cos^{2}{\left(\theta_{2} \right)} \cos{\left(\theta_{1} - \overline{\theta_{1}} \right)} \cos{\left(\overline{\theta_{2}} \right)} + d_{1} \sin{\left(\theta_{2} \right)} \sin{\left(\overline{\theta_{2}} \right)} + d_{1} \cos{\left(\theta_{2} \right)} \cos{\left(\theta_{1} - \overline{\theta_{1}} \right)} \cos{\left(\overline{\theta_{2}} \right)}}\\- \frac{\left(\overline{a_{2}} + \overline{a_{3}}\right) \sin{\left(\overline{\theta_{2}} \right)} \cos{\left(\theta_{1} \right)}}{a_{2} \sin{\left(\theta_{2} \right)} \sin{\left(\overline{\theta_{2}} \right)} \overline{a_{2}} + a_{2} \sin{\left(\theta_{2} \right)} \sin{\left(\overline{\theta_{2}} \right)} \overline{a_{3}} + a_{2} \cos{\left(\theta_{2} \right)} \cos{\left(\theta_{1} - \overline{\theta_{1}} \right)} \cos{\left(\overline{\theta_{2}} \right)} \overline{a_{2}} + a_{2} \cos{\left(\theta_{2} \right)} \cos{\left(\theta_{1} - \overline{\theta_{1}} \right)} \cos{\left(\overline{\theta_{2}} \right)} \overline{a_{3}} + a_{3} \sin{\left(\theta_{2} \right)} \sin{\left(\overline{\theta_{2}} \right)} \overline{a_{2}} + 2 a_{3} \sin{\left(\theta_{2} \right)} \sin{\left(\overline{\theta_{2}} \right)} \overline{a_{3}} + a_{3} \cos{\left(\theta_{2} \right)} \cos{\left(\theta_{1} - \overline{\theta_{1}} \right)} \cos{\left(\overline{\theta_{2}} \right)} \overline{a_{2}} + 2 a_{3} \cos{\left(\theta_{2} \right)} \cos{\left(\theta_{1} - \overline{\theta_{1}} \right)} \cos{\left(\overline{\theta_{2}} \right)} \overline{a_{3}}} & - \frac{\left(\overline{a_{2}} + \overline{a_{3}}\right) \sin{\left(\theta_{1} \right)} \sin{\left(\overline{\theta_{2}} \right)}}{a_{2} \sin{\left(\theta_{2} \right)} \sin{\left(\overline{\theta_{2}} \right)} \overline{a_{2}} + a_{2} \sin{\left(\theta_{2} \right)} \sin{\left(\overline{\theta_{2}} \right)} \overline{a_{3}} + a_{2} \cos{\left(\theta_{2} \right)} \cos{\left(\theta_{1} - \overline{\theta_{1}} \right)} \cos{\left(\overline{\theta_{2}} \right)} \overline{a_{2}} + a_{2} \cos{\left(\theta_{2} \right)} \cos{\left(\theta_{1} - \overline{\theta_{1}} \right)} \cos{\left(\overline{\theta_{2}} \right)} \overline{a_{3}} + a_{3} \sin{\left(\theta_{2} \right)} \sin{\left(\overline{\theta_{2}} \right)} \overline{a_{2}} + 2 a_{3} \sin{\left(\theta_{2} \right)} \sin{\left(\overline{\theta_{2}} \right)} \overline{a_{3}} + a_{3} \cos{\left(\theta_{2} \right)} \cos{\left(\theta_{1} - \overline{\theta_{1}} \right)} \cos{\left(\overline{\theta_{2}} \right)} \overline{a_{2}} + 2 a_{3} \cos{\left(\theta_{2} \right)} \cos{\left(\theta_{1} - \overline{\theta_{1}} \right)} \cos{\left(\overline{\theta_{2}} \right)} \overline{a_{3}}} & - \frac{\left(\overline{a_{2}} + \overline{a_{3}}\right) \cos{\left(\theta_{1} - \overline{\theta_{1}} \right)} \cos{\left(\overline{\theta_{2}} \right)}}{a_{2} \sin{\left(\theta_{2} \right)} \sin{\left(\overline{\theta_{2}} \right)} \overline{a_{2}} + a_{2} \sin{\left(\theta_{2} \right)} \sin{\left(\overline{\theta_{2}} \right)} \overline{a_{3}} + a_{2} \cos{\left(\theta_{2} \right)} \cos{\left(\theta_{1} - \overline{\theta_{1}} \right)} \cos{\left(\overline{\theta_{2}} \right)} \overline{a_{2}} + a_{2} \cos{\left(\theta_{2} \right)} \cos{\left(\theta_{1} - \overline{\theta_{1}} \right)} \cos{\left(\overline{\theta_{2}} \right)} \overline{a_{3}} + a_{3} \sin{\left(\theta_{2} \right)} \sin{\left(\overline{\theta_{2}} \right)} \overline{a_{2}} + 2 a_{3} \sin{\left(\theta_{2} \right)} \sin{\left(\overline{\theta_{2}} \right)} \overline{a_{3}} + a_{3} \cos{\left(\theta_{2} \right)} \cos{\left(\theta_{1} - \overline{\theta_{1}} \right)} \cos{\left(\overline{\theta_{2}} \right)} \overline{a_{2}} + 2 a_{3} \cos{\left(\theta_{2} \right)} \cos{\left(\theta_{1} - \overline{\theta_{1}} \right)} \cos{\left(\overline{\theta_{2}} \right)} \overline{a_{3}}}\\\frac{\sin{\left(\overline{\theta_{2}} \right)} \cos{\left(\theta_{1} \right)} \overline{a_{3}}}{a_{2} \sin{\left(\theta_{2} \right)} \sin{\left(\overline{\theta_{2}} \right)} \overline{a_{2}} + a_{2} \sin{\left(\theta_{2} \right)} \sin{\left(\overline{\theta_{2}} \right)} \overline{a_{3}} + a_{2} \cos{\left(\theta_{2} \right)} \cos{\left(\theta_{1} - \overline{\theta_{1}} \right)} \cos{\left(\overline{\theta_{2}} \right)} \overline{a_{2}} + a_{2} \cos{\left(\theta_{2} \right)} \cos{\left(\theta_{1} - \overline{\theta_{1}} \right)} \cos{\left(\overline{\theta_{2}} \right)} \overline{a_{3}} + a_{3} \sin{\left(\theta_{2} \right)} \sin{\left(\overline{\theta_{2}} \right)} \overline{a_{2}} + 2 a_{3} \sin{\left(\theta_{2} \right)} \sin{\left(\overline{\theta_{2}} \right)} \overline{a_{3}} + a_{3} \cos{\left(\theta_{2} \right)} \cos{\left(\theta_{1} - \overline{\theta_{1}} \right)} \cos{\left(\overline{\theta_{2}} \right)} \overline{a_{2}} + 2 a_{3} \cos{\left(\theta_{2} \right)} \cos{\left(\theta_{1} - \overline{\theta_{1}} \right)} \cos{\left(\overline{\theta_{2}} \right)} \overline{a_{3}}} & \frac{\sin{\left(\theta_{1} \right)} \sin{\left(\overline{\theta_{2}} \right)} \overline{a_{3}}}{a_{2} \sin{\left(\theta_{2} \right)} \sin{\left(\overline{\theta_{2}} \right)} \overline{a_{2}} + a_{2} \sin{\left(\theta_{2} \right)} \sin{\left(\overline{\theta_{2}} \right)} \overline{a_{3}} + a_{2} \cos{\left(\theta_{2} \right)} \cos{\left(\theta_{1} - \overline{\theta_{1}} \right)} \cos{\left(\overline{\theta_{2}} \right)} \overline{a_{2}} + a_{2} \cos{\left(\theta_{2} \right)} \cos{\left(\theta_{1} - \overline{\theta_{1}} \right)} \cos{\left(\overline{\theta_{2}} \right)} \overline{a_{3}} + a_{3} \sin{\left(\theta_{2} \right)} \sin{\left(\overline{\theta_{2}} \right)} \overline{a_{2}} + 2 a_{3} \sin{\left(\theta_{2} \right)} \sin{\left(\overline{\theta_{2}} \right)} \overline{a_{3}} + a_{3} \cos{\left(\theta_{2} \right)} \cos{\left(\theta_{1} - \overline{\theta_{1}} \right)} \cos{\left(\overline{\theta_{2}} \right)} \overline{a_{2}} + 2 a_{3} \cos{\left(\theta_{2} \right)} \cos{\left(\theta_{1} - \overline{\theta_{1}} \right)} \cos{\left(\overline{\theta_{2}} \right)} \overline{a_{3}}} & - \frac{\cos{\left(\theta_{1} - \overline{\theta_{1}} \right)} \cos{\left(\overline{\theta_{2}} \right)} \overline{a_{3}}}{a_{2} \sin{\left(\theta_{2} \right)} \sin{\left(\overline{\theta_{2}} \right)} \overline{a_{2}} + a_{2} \sin{\left(\theta_{2} \right)} \sin{\left(\overline{\theta_{2}} \right)} \overline{a_{3}} + a_{2} \cos{\left(\theta_{2} \right)} \cos{\left(\theta_{1} - \overline{\theta_{1}} \right)} \cos{\left(\overline{\theta_{2}} \right)} \overline{a_{2}} + a_{2} \cos{\left(\theta_{2} \right)} \cos{\left(\theta_{1} - \overline{\theta_{1}} \right)} \cos{\left(\overline{\theta_{2}} \right)} \overline{a_{3}} + a_{3} \sin{\left(\theta_{2} \right)} \sin{\left(\overline{\theta_{2}} \right)} \overline{a_{2}} + 2 a_{3} \sin{\left(\theta_{2} \right)} \sin{\left(\overline{\theta_{2}} \right)} \overline{a_{3}} + a_{3} \cos{\left(\theta_{2} \right)} \cos{\left(\theta_{1} - \overline{\theta_{1}} \right)} \cos{\left(\overline{\theta_{2}} \right)} \overline{a_{2}} + 2 a_{3} \cos{\left(\theta_{2} \right)} \cos{\left(\theta_{1} - \overline{\theta_{1}} \right)} \cos{\left(\overline{\theta_{2}} \right)} \overline{a_{3}}}\end{matrix}\right]$$