

國立台灣海洋大學河海工程研究所 BEM2004 第 14 次作業

In the course, we have briefly introduced the concept of pseudo-differential operator.

Please determine the order of pseudo-differential operator for M kernel after calculating

$$\int_0^{2\pi} M(\rho, \phi; \bar{\rho}, \bar{\phi}) \int_0^{2\pi} M(R, \theta; \rho, \phi) \begin{cases} \cos m\theta \\ \sin m\theta \end{cases} d\theta d\phi, \text{ where } \rho = \bar{\rho} = R = 1.$$

