```
\frac{\mu g_{k_s}(x,y) + \frac{1}{2} \nabla \nabla g_{k_s}(x,y)) - \frac{1}{2} \nabla \nabla g_{k_p}(x,y) :=_s(x,y) +_p(x,y) g_k = \frac{1}{4} H_0^{(1)}(k|x-y|)}{P} Helmholtz \cite{10mm} Pelmholtz \cite{10mm} Pel
                      y \in \mathbb{R}^2
              \begin{array}{l} y \in_+ \\ (x,y) \\ q \in^2 \\ \Delta_e[(x;y)q] + \\ \omega^2[(x,y)q] = \\ -\delta_y(x)q_+^2, \\ \sigma((x,y)q)e_2 = \\ 0\Gamma_0, (\ref{eq:continuous}, \ref{eq:continuous}, \ref{eq:continuous} \\ x_1 \end{array}
                         (\xi, x_2; y_2) =
                         \int_{(}^{\cdot}x_{1},x_{2};y)e^{-\imath(x_{1}-y_{1})\xi}dx_{1},\forall\xi\in
           \begin{array}{l} f(x_1,x_2,y_3) \\ f(\xi,x_2;y_2) = \\ f(\xi,x_2;y_2) + \\ f(\xi,x_2;y_2) \\ f(\xi,x_2;y_2) = \\ f
                                                                                                                                                                                                                                                                                                                                                                                                        \xi \frac{x_2 - y_2}{|x_2 - y_2|} \left( \frac{\xi^2}{\mu_s} \right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    e^{i\mu_s|x_2-y_2|},

\left(-\xi \frac{x_2 - y_2}{|x_2 - y_2|}\right)

              \hat{p}(\xi, x_2; y_2) = \frac{1}{2\omega^2} \left( \frac{\xi^2}{\mu_p} + \xi \frac{\xi^2}{|x_2 - y_2|} \right)
                                                                                                                                                                                                                                                                                                                          \xi \frac{x_2-y_2}{|x_2-y_2|}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    e^{{\scriptscriptstyle 1}\mu_p|x_2-y_2|}.\mu_\alpha =
              \begin{cases} k_2^2 - \frac{y_2}{|x_2 - y_2|} \\ (k_2^2 - \frac{\xi^2}{|x_2 - y_2|}) \\ k_2^2 - \frac{\xi^2}{|x_2 - y_2|} \\ k_3 - \frac{\xi^2}{|x_2 - y_2|} \\ k_4 - \frac{\xi^2}{|x_2 - y_2|} \\ k_5 - \frac{\xi^2}{|x_2 - y_2|} \\ k_7 - \frac{\xi^2}{|x_2 
                         c(x,y) =
                             (x,y)-
               \begin{aligned} &(x,y) - \\ &((x,y') - \\ &(x,y'))_1, -y_2) \\ &x_1????_c(x,y) \\ &\Delta_e[_c(x;y)q] + \\ &\omega^2[_c(x,y)q] = \\ &0_+^2, \\ &\sigma(_c(x,y)q)e_2 = \\ &-\sigma((x,y) - \\ \end{aligned} 
              \begin{array}{l} \sigma(_{c}(x,y)q)e_{2} \\ -\sigma((x,y)-\\ (x,y'))\Gamma_{0}, \in \\ C\backslash \{0\} \\ z^{1/2}\sqrt{z} \\ \Im(z^{1/2}) \geq \\ 0z = \\ z_{1} + \\ iz_{2} \\ z_{1}, z_{2} \in \end{array}
                      z_1, z_2 \in 1/2 = 1/2
                      sgn(z_2)\sqrt{rac{|z|+z_1}{2}}+
              1\sqrt{\frac{|z|-z_1}{2}}, \forall z \in \begin{bmatrix} -1/2 \\ 0 \end{bmatrix}
(z+\frac{1/2}{2})
              \tilde{\mathbf{j}}^{1/2}
                         (z-
                  1)^{1/2}
                  \frac{????x_2}{\mu \frac{d^2(e_1^T c \hat{q})}{dx_2^2}} +
                      1(\lambda +
       \mu \xi \frac{d(e_2^T \hat{q})}{dx_2} + (\omega^2 - \xi)^2
                         (\lambda +
```

 $(2u)\xi^2(e^T,q) = 0(1+2u)d^2(e^T_2\hat{q}) + 1(1+u)\xi d(e^T_1\hat{q}) + (u^2-u\xi^2)(e^T,q) = 0$