邊界元素法第六次作業

1. In the course, we have $U(s,x) = ln(r)$ for 2-D Laplace equation, *i. e.*,

$$\nabla^2 U(s,x) = \delta(x-s)$$

Express $U(x,s), T(x,s), L(s,x)$ and $M(x,s)$ in component form. Also prove that

$$U(s,x) = U(x,s)$$

$$T(s,x) = L(x,s)$$

$$M(s,x) = M(x,s)$$

2. Plot the figures of $U(x_1, x_2; 0, 0)$ for $r = 0.1 \sim 1$.

3. Plot the figures of $T(x_1, x_2; 0, 0)$ for $r = 0.1 \sim 1$.
Setting $n(x) = (cos(0^o), sin(0^o))$
Setting $n(x) = (cos(90^o), sin(90^o))$

4. Plot the figures of $L(x_1, x_2; 0, 0)$ for $r = 0.1 \sim 1$.
Setting $n(s) = (cos(0^o), sin(0^o))$
Setting $n(s) = (cos(90^o), sin(90^o))$

5. Plot the figures of $M(x_1, x_2; 0, 0)$ for $r = 0.1 \sim 1$.
Setting $n(x) = (cos(0^o), sin(0^o))$ and $n(s) = (cos(0^o), sin(0^o))$.
Setting $n(x) = (cos(0^o), sin(0^o))$ and $n(s) = (cos(90^o), sin(90^o))$.

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【存檔：E:/ctex/course/bem/hw976.te】【建檔:Apr./24/'97】