

```
% -----
% ICE for Gauss Seidel
% LiXin
% 2022/4/29
% -----
```

```
T=[0 0 0 0 0; 75 0 0 0 50; 75 0 0 0 50; 75 0 0 0 50;
    100 100 100 100 100];
r=1.5;
err=1;
while 1
    for i = 2:4
        for j = 2:4
            todd=T(i,j);
            T(i,j)=r*(T(i+1,j)+T(i-1,j)+T(i,j+1)+T(i,j-1))/4+(1-r)*T(i,j);
            err=min(abs(T(i,j)-todd)/T(i,j),err);
        end
    end
    if err < 1e-6
        break
    end
end
T(2:4,2:4)
```

```
ans = 3×3
    42.8582    33.2598    33.9287
    63.1705    56.2500    52.4551
    78.5718    76.1160    69.6431
```