

# SOR acceleration

I use Equation 3 from lab3.pdf to accelerate original Jacobi method.

$$C'_{b,SOR} = \omega C'_b + (1 - \omega)C_b. \tag{3}$$

I set the parameter  $\omega = 1.4$  that value is I tried the best.



(a) Jacobi, no acceleration.  
Time:3698197us, Iteration:20000 times



(b) Jacobi, acceleration with SOR method  
Time:2162066us, Iteration:10000 times

## Comparison



(a) Iteration: 4000 times, no acceleration.



(b) Iteration: 4000 times, acceleration.



(a) Iteration: 10000 times, no acceleration.



(b) Iteration:10000 times, acceleration.

## Result

