Application of recursive Green function on light propagation

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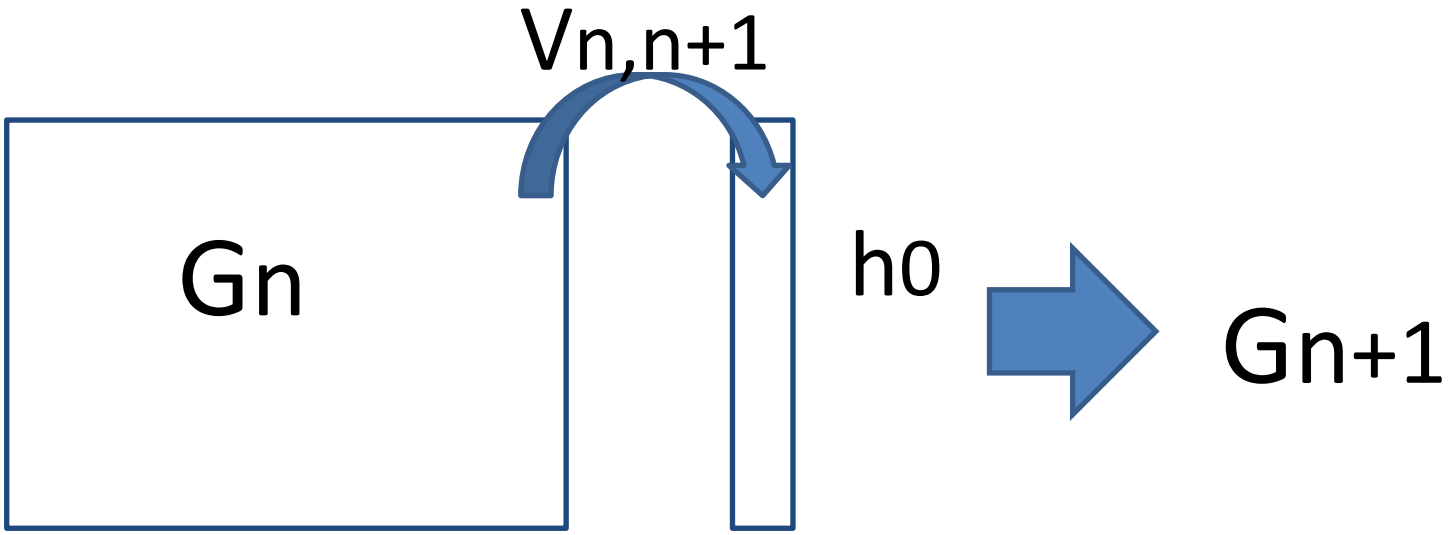
Yuhao Kang

- $(E - H)G(E) = I$



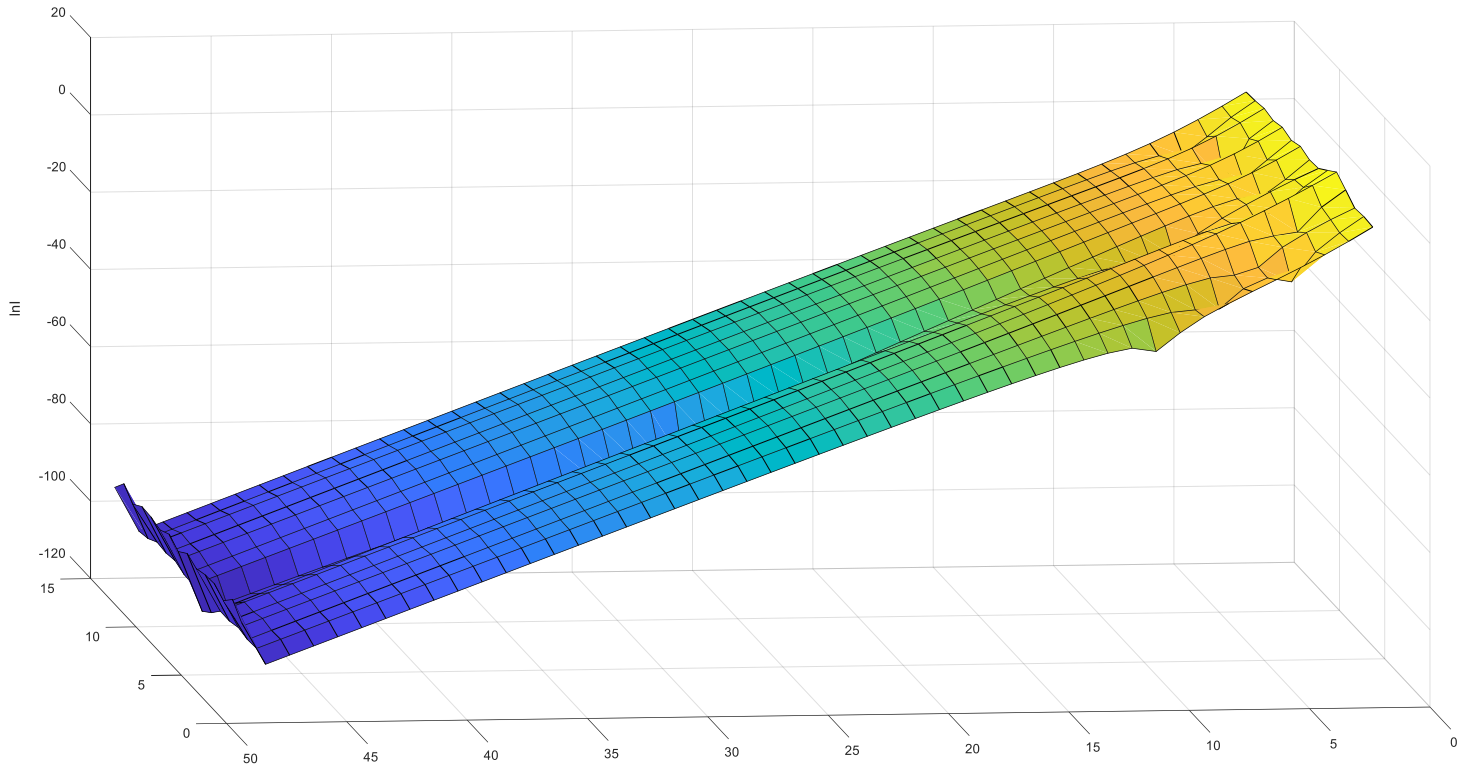
$$G_{n+1,1} = g_{n+1,n+1} V_{n+1,n} G_{n1}$$
$$G_{n1} = g_{n1} + g_{nn} V_{n,n+1} G_{n+1,1}$$

- $\frac{1}{\varepsilon(r)}\nabla\times\left(\nabla\times E(r)\right)=\left(\frac{\omega}{c}\right)^2 E(r)$

$E(m+1,n)$+$E(m-1,n)$ + $E(m,n+1)$ + $E(m,n-1)$-4$E(m,n)$

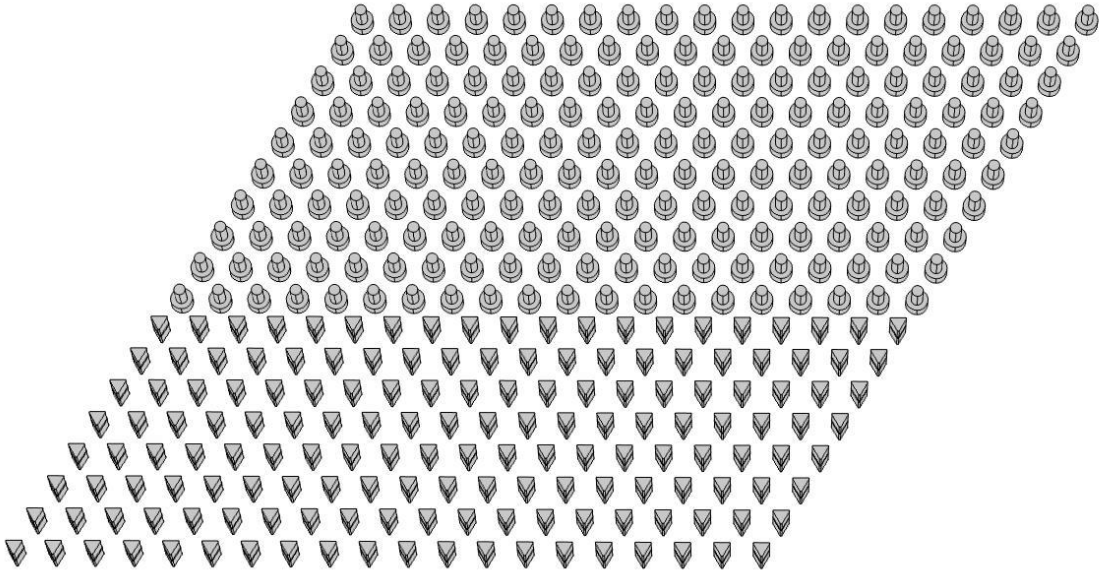
V h

Speckle pattern



What’s next

- 1. local Green function
- 2. graphene-like lattice plus disorder



THANKS!