

MCX Problems Summary

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Problems I have reported (before June 2012)

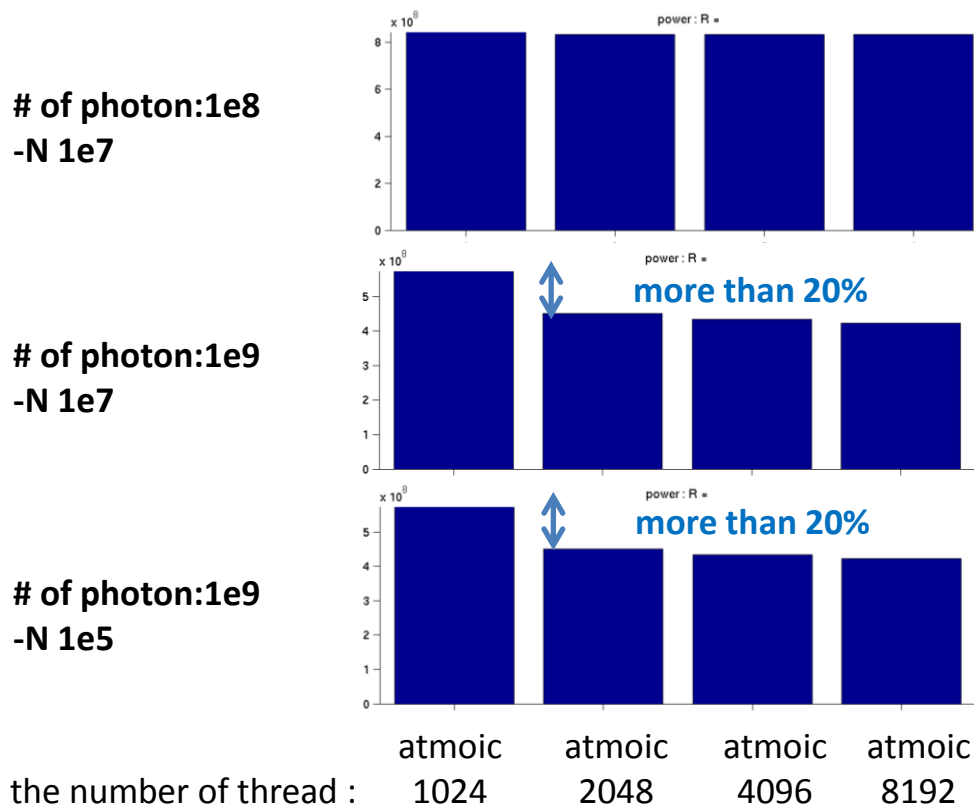
- Between-thread problem
- -r option problem
- MT RNG problem

Between-thread problem

Previous Reports

The total power of fluence distribution depends on the number of thread so much. This is observed when the number of photon is 1e9 (but not 1e8).

Results of Rev.297



$$\text{Total power} = \text{sum}(F(:).^2)$$

F : fluence of all the voxels
(3D matrix)
(not multiplied by time bins)

Very similar results to previous ones.

Rev297 does not solved !!

-r option problem

Previous Reports

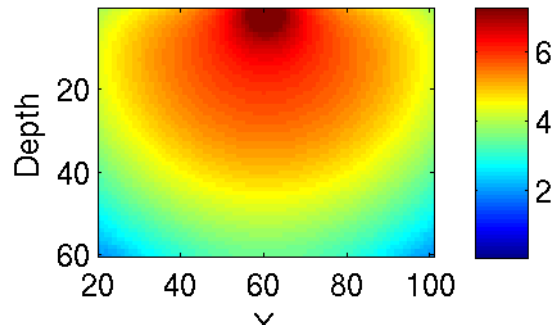
-r option changes the scale of log-fluence of each voxel by 100 folds.

This is observed when the number of photons is $1e9$ and using `-r 1`, `-r 10`, `-r 100`.

Results of Rev.297

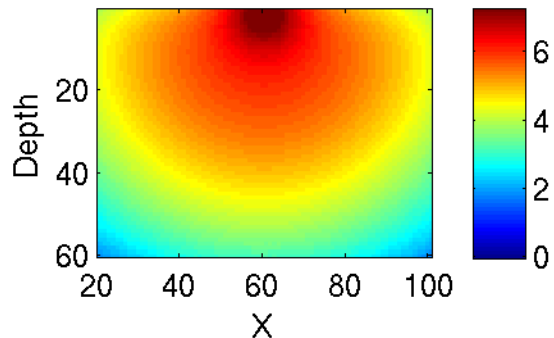
[atomic] nt=2048(13)

of photon:1e9
-N 1e7



[atomic] nt=2048(14)

of photon:1e9
-N 1e5



The scale of log-fluence does not depend on `-N` option.

Rev297 does solve !!

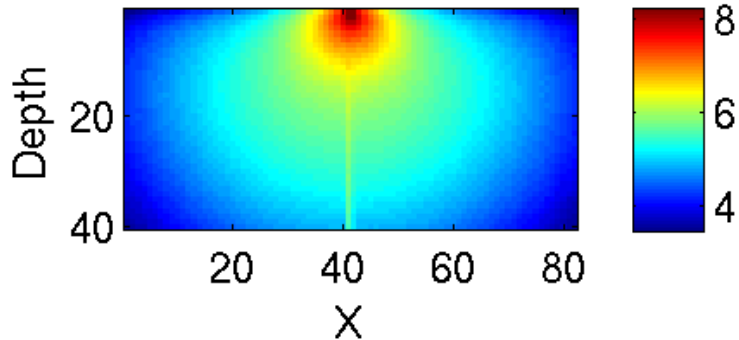
MT RNG problem

Previous Reports

MT RNG causes the line artifacts beneath the source probe.

Results of Rev.285

[atomic] nt=1024(3)



The scale of log-fluence does not depend on $-N$ option.

Rev285 does not solve !!
This should remain in Rev297 since you have not corrected anything in MT RNG since rev285.

Summary

- Between-thread problem and MT RNG problem still remain.