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# reconstruct3d

Tue, 09/17/2019 - 20:18

#1



Daniel Asarnow

reconstruct3d

Hi Tim,

Can we use reconstruct3d to reconstruct cisTEM par files? I've tried using the imported stack and an output .par, or exporting to Frealign, but I just get a NaN volume. I've also tried normalizing particles or not, inverting contrast or not, etc., and the output indicates normal termination. From reading the code so far I haven't figured this out.

I mainly want to reconstruct maps using your reconstruct3d, but not normalizing so I have the direct particle intensity scale.

Thanks!





timgrant

Hi Dan,

Hi Dan,

Yes, this should work as long as the particle stack and par file match up. Are you saving the par file from the refinement results panel? Also, are you inputting the radius for mask, not the diameter?

Tim







Daniel Asarnow

Thanks for the reply, Tim. It

Thanks for the reply, Tim. It turns out I \*had\* been giving the diameter even though my own variable was named radius. It's behaving as expected now.

You mentioned subtraction will be available in a future version of cisTEM - can I ask how you are scaling the references / projections for subtraction? Even with normalization set to "no," the intensity scale is very different compared with relion\_reconstruct. When I make projections from the relion output, the intensity scale matches the particles (on average).





timgrant

Hi Dan,

Hi Dan,

Yes there is some additional scaling required to get things to match up. I can't remember off the top of my head what it is, it is probably something like  $\sqrt{\text{number\_of\_pixels}}$ . If you need it, I can tell you in more detail?

Tim



Tue, 10/08/2019 - 19:44 (Reply to #4)



Daniel Asarnow

If it's not too much trouble,

If it's not too much trouble, I'd appreciate it!

Thanks.

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