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## No few/bad 2D classes

Wed, 12/06/2017 - 09:28

#1



JomaaA

No few/bad 2D classes

Hello,

A great software and very easy to follow tutorial, many thanks for the new release!

I am running a 2D classification asking 50-60 classes using my dataset. I noticed that I get no bad or 2D with classes with few particles. Another thing, I also noticed that particles mobility is quite high ~70-80% even after 15 iterations and logP is decreasing instead of increasing. Sigma seems fine and goes down, 2d classes look good and go to around 10A. I saw in the documentation to test with different smoothing factors. What would be a recommended value in this case? I am currently using default which is 1. Another question, can I see the stats/plots after the run is finished?

Many thanks in advance!

Ahmad





timgrant

Hi Ahmad,

Hi Ahmad,

I will check the logP, but it may be decreasing as the resolution range goes from low resolution to high resolution. The particle mobility is actually not a very useful statistic in the early rounds as a limited percentage of the particles are used, it only really becomes meaningful when the usage is 100%. Currently, the plots are not stored, and so you can't see them after the job is finished.

When you say "I noticed that I get no bad or 2D with classes with few particles." do you mean that all your classes are good? Perhaps your dataset is just very good? If you suspect that it is missing some junk, you could increase the number of classes.

Trying different smoothing factors would normally be done if you are not happy with the classification results, particularly if you get a lot of empty classes you may wish to decrease the smoothing factor. In this case, you will have to use a trial and error approach, e.g. starting at 0.5 and seeing how it looks.

Cheers!

Tim



Wed, 12/06/2017 - 11:36 [Reply to #2](#)



JomaaA

Hello Tim,

Many thanks for your reply!

The class averages look good with a bit of fine grainy background though. I ended up asking for 120 classes in the 2D classification and I can see some classes now with fewer particles. I guess the picking in cisTEM is much better compared with other software? I did have to optimize parameters but I am really happy with the outcome of the picking algorithm. I will proceed with the ab-initio model generation and see how it goes.

Best wishes,

Ahmad

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