Subject: Positioning of the mechanics
Posted by thuyuk on Tue, 16 Sep 2014 14:26:56 GMT
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Hi All, especially Damian

Andres mentioned me that there was a shift on the mechanics and it affects the position of the target chamber. In fact, it is crucial for the Doppler shift calculation. So, do you (or does anybody) remember anything about it and how much was the shift and in which direction?

Thank you!

Subject: Re: Positioning of the mechanics
Posted by Damian Ralet on Wed, 17 Sep 2014 15:03:31 GMT
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Hi Tayfun,

The mechanic can be indeed not perfectly aligned. But the shift should be small (few mm).
The same can be expected from the target position, where the center can be slightly shift (2 mm for me).
The way I got the shift, is using the doppler corrected X-rays spectra. It is of course not optimum since energy is low, but it gives a starting point for future gamma.

Cheers,
Damian

Subject: Re: Positioning of the mechanics
Posted by thuyuk on Fri, 19 Sep 2014 13:43:05 GMT
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Hi Damian,

Thanks for the answer. Then there was no dramatic shift during the campaigns in 2012.

I would like to ask you further questions just to understand better your technique:
Do you use the central contact of each crystal for the X-ray analysis or do you run the PSA? In case of using the central contact, how do you deal with the position resolution in the crystals?

Thank you very much in advance!
Tayfun

Subject: Re: Positioning of the mechanics
Posted by Damian Ralet on Fri, 19 Sep 2014 14:14:48 GMT
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Hi Tayfun,

I hope not for the huge shift ^^

I am using the PSA interaction positions. I know it is not optimum at the moment, but it was fine for a rough tuning.
I still have to improve PSA, and get this procedure done again, most probably with a gamma line (which is easier for tunning if statistic is sufficient).
The other solution, is to use the segment center to doppler correct the spectra. I did not try it for X-rays, and I am not sure it is a any helps to have a big error on position to do a fine tunning of the position of the target.

Damian

Subject: Re: Positioning of the mechanics
Posted by Plamen Boutachkov on Wed, 25 Mar 2015 08:28:47 GMT
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Dear Tayfun,
Just saw your post. The information you refer to is at in the AGATA elog. Currently assesable under:

https://lxagata0.ganil.fr:8989/Infrastructure-GSI/

Regards,
Plamen

Subject: Re: Positioning of the mechanics
Posted by thuyuk on Wed, 25 Mar 2015 08:42:14 GMT
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Hi Plamen,

thanks a lot for your reply.

Could you confirm that after taking these precise measurements using LASER beam, you didn't find out any shift in the target chamber position?

Thanks,
Tayfun

Subject: Re: Positioning of the mechanics
Posted by thuyuk on Thu, 26 Mar 2015 10:50:32 GMT
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Hi Plamen, again,

After looking at this page more carefuly, I noticed that the shift I am concerned about might not

be due to the target chamber, but the AGATA frame.

What does exactly mean "beam left"? Is it 13 mm shift in the +x axis of the FRS coord. system?

Thanks!
Tayfun
