Present status of the photon collider, what next?

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Please, see my review talk on this subject in proceedings of the conference PHOTON2007 which was held in one month after LCWS07 [1]. Here I would like to give only one remark.

Although the photon collider is the "option" (or the ILC second stage) but it is extremely important now to make the baseline ILC design which allows rather easy transition between e^+e^- and $\gamma\gamma$, γe modes of operation. Unfortunately, the ILC configuration in the Reference Design Report [2] with one IP at 14 mrad crossing angle is not compatible with the photon collider, because the photon collider needs 25 mrad. Any upgrade needs additional excavation in the IR region which is practically impossible. Moreover, the accelerator part of the Reference Design Report does not include any options (e^-e^-, $\gamma\gamma$, γe, fixed target) and consider only basic e^+e^- mode. The GDE management were not against the options but motivated this very strange design decision by necessity to reduce the initial ILC cost (political reasons).

Now a good news. The GDE agreed that ILC Engeenering Design should include the photon collider. At IRENG07 [3] it was agreed to redesign the interaction region area in order to make it compatible with $\gamma\gamma$ collisions. So, the photon collider has returned to the track after two years uncertainties (and a struggle for existence)!

References

[1] PHOTON2007: International Conference on the Structure and Interactions of the Photon including the 17th International Workshop on Photon-Photon Collisions and the International Workshop on High Energy Photon Linear Colliders, July 17, 2007, Paris. http://lpnhe-lc.in2p3.fr/photon2007/

[2] International linear collider Reference Design Report, ILC-Report-2007-001, August 2007.

[3] ILC Interaction Region Engineering Design Workshop (IRENG07), September 17-21, 2007, SLAC, Stanford, USA. http://www-conf.slac.stanford.edu/ireng07/