**Belle II PXD EVO Meeting**

13.10.2010

Present:

Jelena Ninkovic; Christian Kiesling; Hans-Günther Moser; Hans Krüger; Soeren Lange; Andreas Ritter; Andreas Moll; Carlos Mariñas; IEKP Karlsruhe; Manuel Koch; Sergey Fourletov; Zbynek Drasal; Ichi Kishishita; Philip Pütsch; Ivan Peric; Andreas Wassatsch; Iván Vila; Stefan Rummel; Susanne Koblitz; Mikhail Lemarenko; Bartlomiej Kisielewski; Florian Lütticke ; Jelena Ninkovic; Marcel André Vos; Jochen Knopf .

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|   | [Wednesday 13 October 2010](http://indico.mppmu.mpg.de/indico/conferenceDisplay.py?confId=961#2010-10-13) |  |
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| **Wednesday 13 October 2010** | [toptop](http://indico.mppmu.mpg.de/indico/conferenceDisplay.py?confId=961#top)  |

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| 10:00 | modify this itemwrite minutessubmit materialSummary: Valencia Workshop (30') ([files Slides](http://indico.mppmu.mpg.de/indico/materialDisplay.py?contribId=0&materialId=slides&confId=961) ppt file  )  | Christian Kiesling |

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| 10:30 | modify this itemwrite minutessubmit materialIrradiation of FOS sensors at CNA (20') ([files Slides](http://indico.mppmu.mpg.de/indico/materialDisplay.py?contribId=4&materialId=slides&confId=961) ppt file  )  | Ivan Vila |

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| 10:50 | modify this itemwrite minutessubmit materialDCD-B submission (30')  |  |
|  | * modify this itemwrite minutessubmit materialDCD-B performance (15') ([files Slides](http://indico.mppmu.mpg.de/indico/materialDisplay.py?subContId=0&contribId=1&materialId=slides&confId=961) pdf file  )
 | Jochen Knopf |
|  | * modify this itemwrite minutessubmit materialIvan DCD (15') ([files Slides](http://indico.mppmu.mpg.de/indico/materialDisplay.py?subContId=1&contribId=1&materialId=slides&confId=961) ppt file  )
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| 11:20 | modify this itemwrite minutessubmit materialAOB (20')  |  |

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(http://indico.mppmu.mpg.de/indico/conferenceDisplay.py?confId=961)

1. **Summary: Valencia Meeting (Christian Kiesling)**

Christian gave a summary of the DEPFET workshop in Valencia:

<http://indico.mppmu.mpg.de/indico/conferenceDisplay.py?confId=900>

These minutes should not be a summary of a summary, so please refer to the transparencies.

Christian mentioned news on the schedule, recently circulated as a proposal by Ushiroda-san. According to Ushiroda-san the commissioning of KEKB (with beast II) will start October 2014 (not April 2014). In addition the cosmic ray run will not be before but parallel to the commissioning. This actually looks like one year of additional construction time. He also proposes not to install PXD and SVD directly after commissioning but have a phase II commissioning with the rest of Belle II before.

Concerning BEAST II: we need to create a work package and find a coordinator of this activity.

1. **Fibre Irradiations**

David Moya reported on the irradiations of the fibres used for the alignment monitors. Irradiations were done at a cyclotron at CNA (Centro Nacional de Acceleradores) in Sevilla with 15.5 MeV protons. The total dose was 3.3x1015p/cm², the irradiation was targeted for sLHC. Preliminary evaluation show that acrylate fibres show the least damage (change of the wavelength 0.7 nm). Their damage would correspond to an error in position resolution of 5µm, which is acceptable. Ivan Vila mentioned that, though acrylate is best in terms of radiation hardness, it is very fragile and assembly might be difficult. Since we expect much less radiation at Belle II another material might be the better choice.

1. **DCD-B resubmission**

First Jochen summarized the performance of the DCD-B. In general it works very well, but there a some problems, the most severe one is the insufficient speed. The chip runs well with a sampling time of 320ns, with 2-3 x the noise at 160ns but does not work at all blow 128ns. It seems that the problem is understood and can be fixed.

Ivan proposed to re-submit a new, fixed version October 25. There are three options:

* 1. Full size chip with bumps. Will be back in April 2011.
	2. Small wire bondable chip. It will have additional test features but cannot be used with the large matrices (bump bonding only). It will be back in January 2011.
	3. Small chip with ¼ (?) of the channels, compatible with bump bonding but not delivered with bumps. Bumps will be placed at Heidelberg (like for the SWITCHER B). It will also have additional test features. It will be back in January 2011.

Clearly option 1 is the most expensive and needs additional money, 2) and 3) can be financed from the BMBF funds. Christian Kiesling assured that this should not be a problem and the money can be found.

Ivan strongly recommended option 3) which is fast and still gives us a useful chip for the most important tests. The latter was confirmed by Rainer and Jelena.

We discussed whether one can submit 1) and 3) in parallel (the big chip submitted by MPI). This is not impossible, but would mean additional load for Ivan and hence more risk. The schedule for the October 25 submission is already tight.

Hence we agreed on option 3.

1. **AOB**
* Next meeting: October 26, 2010, 10:00 (CET)