

## Summer student projects DESY ATLAS group

group leader: Dr. Michael Medinnis

| project   | software (S)/<br>hardware(H) | contact/supervisor  | text file name   |
|---|------------------------------|---|--|
| inner tracker simulation studies  | S                            | Dr. Nick Styles   | summerstudent.request.form-nstyles.txt                   |
| Study of the energy shared by jets with $R=0.6$ and $R=0.4$ and evaluation of the correlations of each component of the JES uncertainty between different jet sizes | S                            | Dr. Pavel Starovoitov   | summerstudent.request.form_pavel_starovoitov.2012.txt    |
| Study of $Z \rightarrow e e$ decays and determination of calorimeter calibration constants  | S                            | Dr. Alexander Glazov, Mikhail Karnevskiy, Stanislav Shushkevich | summerstudent.request.form_sasha_glazov.txt              |
| Study of the angular variables in the $H \rightarrow \gamma \gamma$ search  | S                            | Dr. Kerstin Tackmann, Martin Goebel                             | summerstudent.request.form.2012.kerstin_tackmann.txt     |
| study of the limits for different categories of di-photon events in the SM Higgs analysis   | S                            | Dr. Marcos Jimenez Belenguer, Christopher Hengler               | summerstudent.request.form.2012.belenguer.txt            |
| simulation of the High-Luminosity LHC version of the ATLAS Inner Detector   | S                            | Dr. Peter Vankov, Dr. Tiago Perez                               | summerstudent.request.form_peter_vgankov.txt             |
| Study of the POWHEG Monte Carlo generator and parton showers for inclusive top pair production  | S                            | Dr. Judith Katzy  | summerstudent.request.form.ttbarplusjet_judith_katzy.txt |

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| Efficiency studies of the JVF cut on jets stemming from bottom quarks (so-called b-jets) in top-anti-top pairs           | S   | Dr. Karl-Johan Grahn | summerstudent.request.form_ttbar_plus_jets_karl_johan_grahn.txt |
| Cut optimization and efficiency studies for supersymmetry searches   | S   | Dr. Janet Dietrich   | summerstudent.request.form-janetdietrich.txt                    |
| Identification of heavy quark jets in ATLAS data and understanding of the background (mainly top pair production)        | S   | Dr. Takanori Kono    | summerstudent.request.form_takanori_kono.txt                    |
| Testing of the ATLAS Pixel Detector the fibers and qualification of them   | H   | Dr. Marcel Stanitzki | summerstudent.request.form_marcel_stanitzki_1.txt               |
| Building of a web-accessible data base and tools for the quality assurance of the IBL fibers of the ATLAS Pixel Detector | H/S | Dr. Marcel Stanitzki | summerstudent.request.form_marcel_stanitzki_2.txt               |
|  | H   | Igor Rubinsky        | projects send in an extra mail to Olaf                          |
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