Letter of Intent to express an interest to design, engineer and eventually build a detector at the International Linear Collider, ILC

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The purpose of this document is to define more precisely the letters of intent (LOI) for detectors at the ILC.

With the LOI a group expresses its interest to develop a design for a detector at the ILC. The LOI will form the basis on which groups will be invited to further develop and detail its plans and eventually submit an engineering design report, EDR. It is expected that the community will be invited to submit EDR's along with the equivalent document for the accelerator around 2010.

The LOI should contain information on the proposed detector, its overall philosophy, its sub detectors, and how it will address the ILC physics questions. It should contain a discussion of integration issues with the machine. It should be developed enough to allow a first preliminary assessment of civil engineering issues like interaction hall, support halls etc. It should enable the reader to judge the potential of the detector concept and to identify the state of technological developments for the different components. Alternative technological options should be elaborated. Where needed areas of further research and development should be identified. The group submitting the LOI should define its position and role in the ongoing international research and development for a detector at the ILC. The LOI should include a preliminary cost estimate.

The LOI should be concise, and should not exceed about 100 pages in length. To supplement the LOI, it can, but need not, refer to other technical document, where more technical details are given. If so these documents should be submitted together with the LOI.

In addition to a concise technical description of the proposed detector the LOI should present the structure of the group which is proposing the detector. The groups should convincingly demonstrate that they have the resources and the strength needed to push the detector concepts towards a detector engineering design. The LOI therefore should contain a description of resources committed, promised and envisioned, together with a realistic time estimate when the resources will be available. While the LOI will not contain binding commitments, the reader should be able to judge the capacity of the group to carry out the work.