First ECFA WORKSHOP.

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Kinematic Fitting at future e+e- Higgs Factories

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The well-known initial state of e+e- colliders can be exploited in physics analyses by fits of the measured quantities to kinematic constraints, called kinematic fitting. Compared to LEP, though, the detector precision increased dramatically, while initial-state radiation and beamstrahlung make the initial-state somewhat less well known, making new developments mandatory. This contribution will present recent developments in MarlinKinfit, which are ready to be provided also via Key4HEP. This includes the treatment of photon radiation, improved minimisation engines, so-called "soft" constraints as well as the usage of sophisticated covariance matrix estimates for the measured quantities, thereby exploiting the high-granularity of particle flow detectors.

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