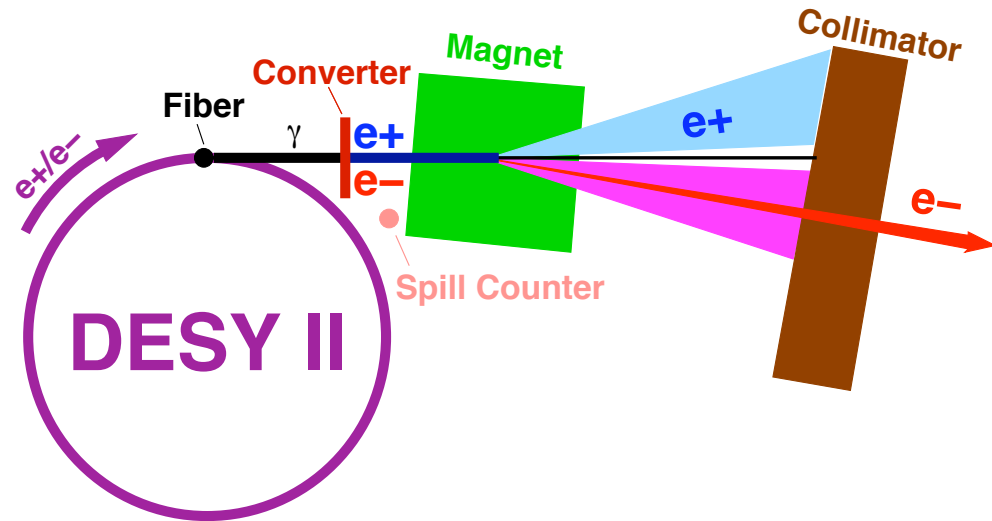


DESY TEST BEAM

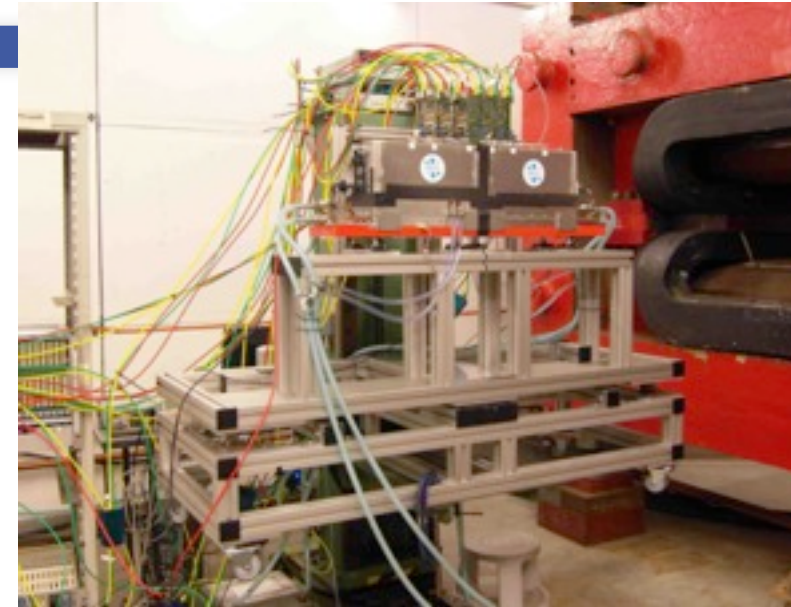
- DESY provides **three** test beam lines with **1-6 GeV/c** electrons with up to **5kHz** particle rate.
- Very simple system, no beam optics, only momentum selection via magnet.
- Bremsstrahlung beam generated by a carbon fibre in the circulating beam of the electron/positron synchrotron DESY II.



- Photons are converted to electron/positron pairs with a metal plate.
- Beam is spread out into a horizontal fan with a dipole magnet. Collimator cuts out final beam.
- DESYII: Mainly injector for DORIS and PETRA (synchrotron sources).
 - For DORIS: DESYII delivers every second cycle (160ms) single bunches with about $1 \cdot 10^9$ electrons ($3 \cdot 10^9$ positrons) at 4.5GeV
 - For PETRA: DESYII delivers every fourth cycle (320ms) single bunches with $3 \cdot 10^{10}$ electrons ($1 \cdot 10^{10}$ positrons) at 7GeV
 - Test beam runs in PETRA mode

INFRASTRUCTURE OFFERED

- All three testbeam lines have
 - Interlock systems
 - Magnet control
 - Patch panels, Gas warning systems
 - Fast internet connection (DHCP)
- Support:
 - Translation stages
 - Premixed gases
 - Superconducting Magnet (1T - EUDET)
 - Beam Telescopes:
 - MVD Telescope (medium precision $<15\mu\text{m}$)
 - EUDET Telescope (high precision $<5\mu\text{m}$)
 - access to technical services, safety instructions
- 5T magnet (stand alone, not at test beam)



5T Magnet with 28cm inner diameter

ACCESS TO DESY TB WITHIN AIDA

- DESY test beam coordinators: Norbert Meyners, IMG
- Negotiate length and date of stay with users
- Typical time at DESY: 1-4 weeks
- Typical infrastructures: telescope, magnet, trigger, translation stages
- User groups work independently (after safety checks etc.)
- budget should cover (100kEUR):
 - Helium for magnets (partially)
 - user support for transnational access
- WP text will be based on EUDET and DEVDET, updated for AIDA

	users	ILC	LHC	others	weeks
2005	13	7	3	3	46
2006	16	12	1	3	50
2007	18	15	2	1	37
2008	shutdown				