

Short HERA Status Report

HERA-Experiment Coordination

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Progress since last meeting

The progress since last coordination meeting is low

- The high intensity positron run and high luminosity luminosity run in December 02 failed because of vacuum problems with the superconducting cavities → cavities warmed up to room temperature
- The pumping on the warmed-up GG/GO beam pipe over the shutdown from Dec 23-Jan02 did not result in noticeable improvement
- In January, we had several luminosity runs with more than 30mA
- However, a non-understood intensity & energy dependend life time problem put a stop on progress
- Diagnostics of the lifetime problem (presumably) caused a vacuum leak in NR @ 11m & 14m → venting to 1mbar, pressure is now on the level of 5×10^{-8} mbar compared to 2×10^{-9} mbar before the incident → we propose to warm up the GG/GO pipe to 300K

High Priority Items before shut down

- Reach 50mA e+
- Achieve $L = 4 \times 10^{31} \text{ cm}^{-2}\text{s}^{-1}$
- Demonstrate further progress in proton related background
- Make sure that rotators South/North work

Less priority:

Polarisation with 3 rotators

Background Review Main Recommendations

- Go ahead with shut down
- Get high e intensity and high luminosity before shutting down
- Carefully review the designs of improved components

Proposed running

- Warm up beam pipe
- Run for 1 week continuously with 30mA
- Continue with high e intensity luminosity running
- Use the two last weeks in February for
- Beam tests