

My work on ATRAP, Part II

Steven Moses

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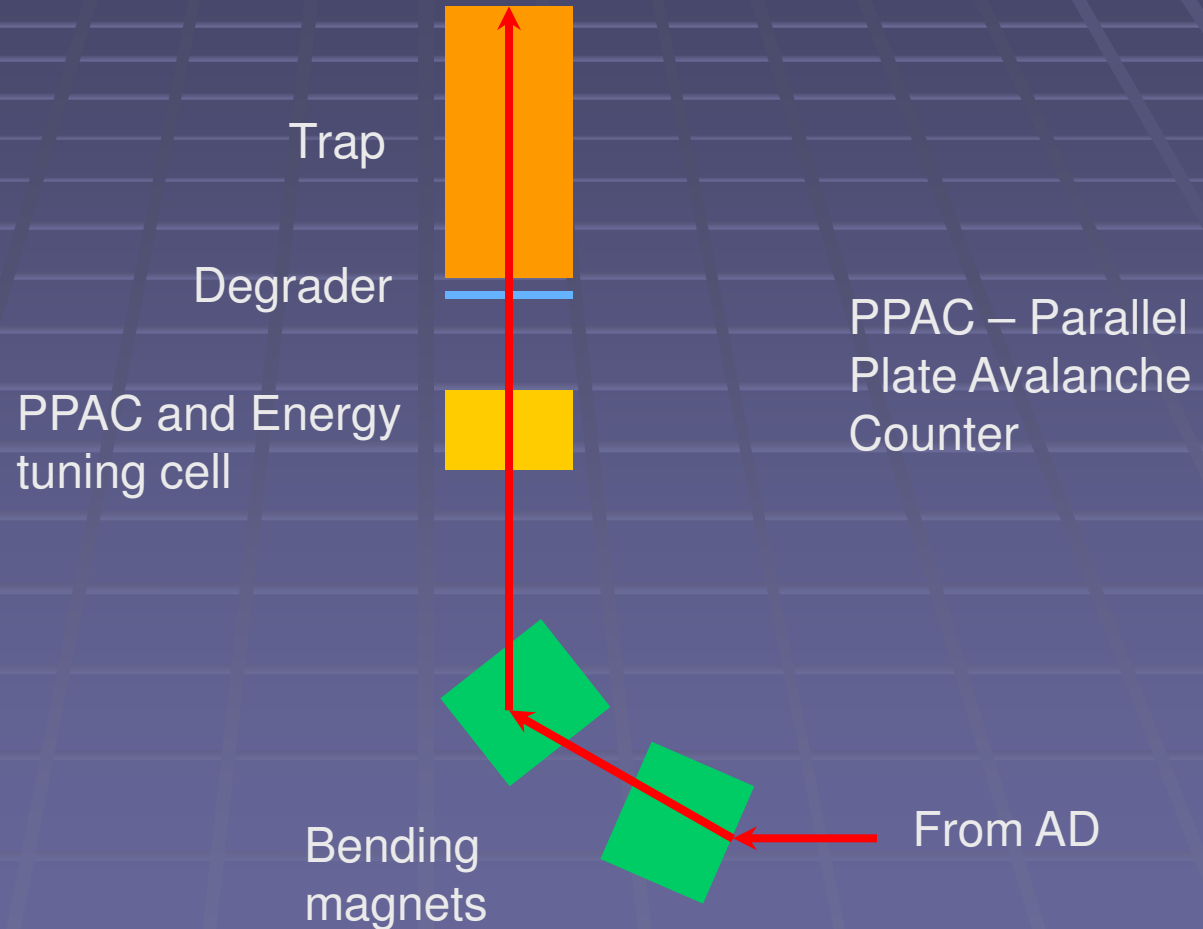
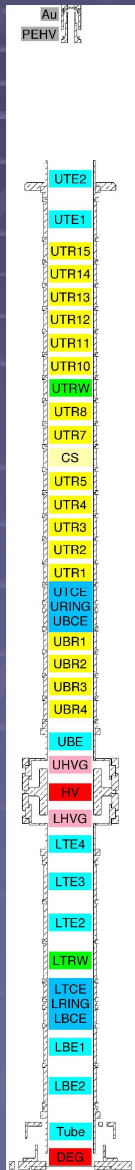
University of Michigan-CERN REU

Prof. G. Gabrielse and Dr. J. Wrubel

LabVIEW Programs

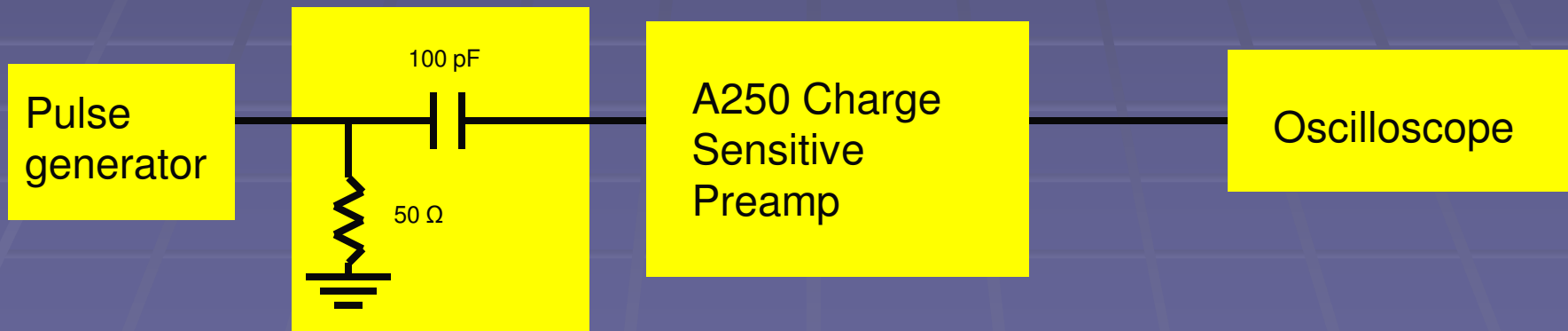
- Have developed a VI to control the operation of an excimer laser used for producing photoelectrons.
- Currently testing this VI and comparing its performance with the software from the manufacturer.
- Once this is done, this VI will be used in place of the original inefficient software.

Antiproton beam path



Calibrating Charge Counters

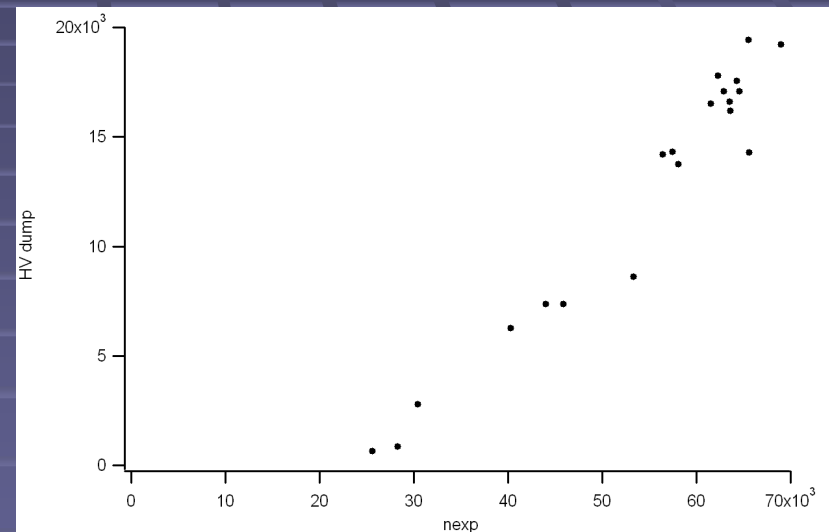
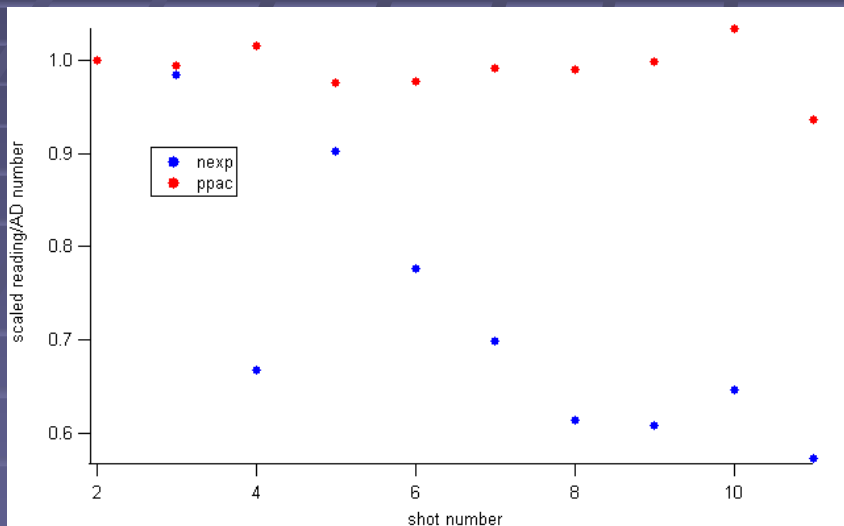
- Electrons or positrons are deposited on the degrader.
- Want to calculate the effective capacitance of the charge counter.



During calibration, the charge is simulated by converting the pulse from a pulse generator into charge.

Studying pbar normalizations

- 3 ways to determine the number of antiprotons per cycle: nexp, PPAC sum, and AD number.

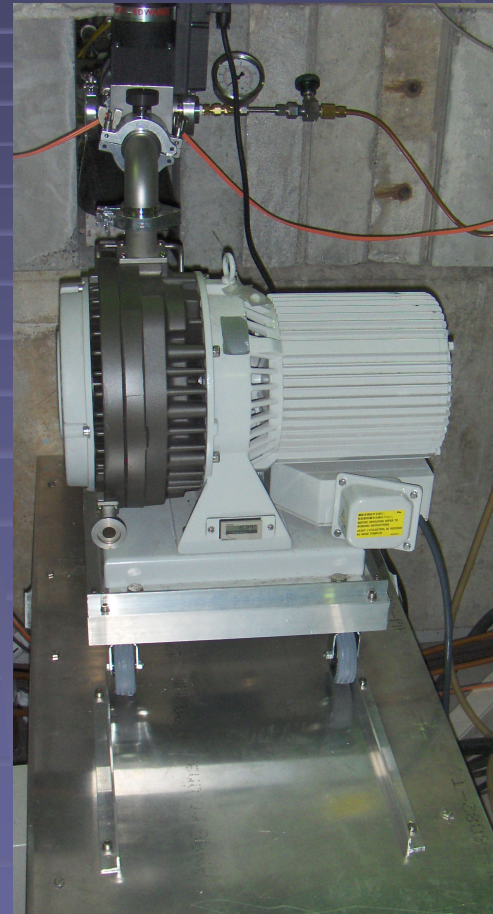


	AD number	ppac sum	nexp
Normal Conditions	35620000	683.049	63935
100% SF6	35860000	684.477	32196
0% SF6	35620000	688.269	71737

It seems as though the ppac shows a good linear relationship to the AD number, while nexp is dependent on experimental conditions.

Other projects

- Building a wagon for a vacuum pump.
- Fixing a liquid helium dewar level meter.
- Creating electrical controls for gate valves.



Questions?

