A few remarks…

If you have not already done so, then by end of July (Tuesday!) please...

- Register for the workshop
- Submit your title/abstract to Indico

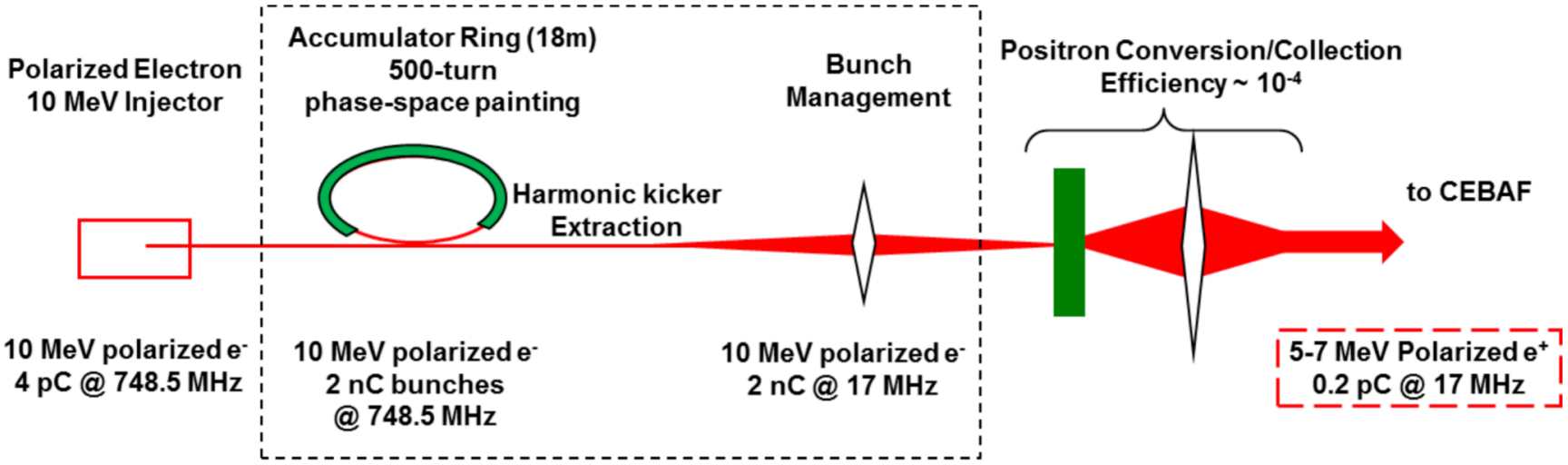
This workshop has two primary aims...

- 80% solicit and document the physics potential and beam requirements at CEBAF, JLEIC or LERF,
- 20% discuss technical issues associated with producing and delivering positron beams at CEBAF, to JLEIC or at LERF

Thank you for participating and contributing to the workshop.

Workshop announcement suggested the following minimum capability might be available…

Machine	Positron Beam	Positron Polarization	Positron Source Bunch Charge	Positron Source Rep Rate
CEBAF	I > 100 nA	> 60%	0.4 fC	250 MHz (cw)
JLEIC	L > 10^{33}/cm-s	> 40%	0.2 pC	17 MHz (0.25% DF)



With a minimum conversion and collection efficiency of electron to positron >1E-4 using a conventional positron converter at 10 MeV the corresponding electron source conditions are 1-10 pC at 250-1000 MHz.

CEBAF 6 GeV Accelerator Acceptance

How **bad** can the beam be and still be transported by CEBAF

The 6 GeV e^- beam is quite exceptional, the e^+ beam will probably not be of the same caliber.

Property	Symbol	Value	Unit
Admittance	$\mathcal{A}$	5×10^{-6}	m-rad
Injection Chicane Momentum Acceptance	$\frac{\delta p}{p}$	1×10^{-2}	
Inj. Chicane Energy Acceptance at 125 MeV	ΔE	1	MeV
Arc1 Momentum Acceptance	$\frac{\delta p}{p}$	1×10^{-3}	
Arc1 Energy Acceptance at 1 GeV	ΔE	1	MeV

- The $\mathcal{A}$ is about 10$\times$ the ε_N of the e^- beam. The e^+ beam will be produced with a much greater initial energy ($3 \rightarrow 30$MeV) vs 100keV for e^-, the equivalent ε_N for e^+ will be $\mathcal{O}(100)$ to $\mathcal{O}(1000)$ larger.
- Injector Chicane Admittance includes differential pumping aperture.
- Energy Acceptance can be increased by using low dispersion optics.