



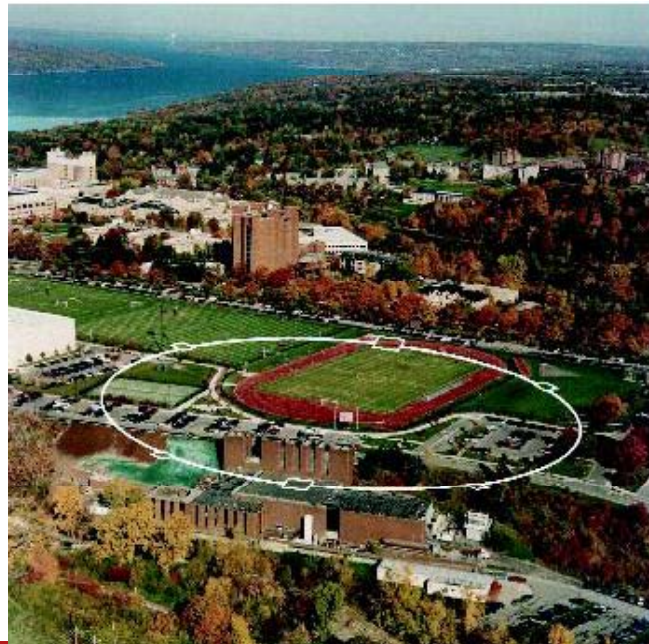
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CesrTA Down Time and Run Plan

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Down 1 and Run 1

	2008												2009												2010		
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar			
Preparation for Ring Reconfiguration																											
Downs with Upgrades/Modifications																											
CesrTA Runs																											
CHESS Runs																											

- Install instrumented CESR dipole and drift region chambers – segmented RFAs.
- Remove first wigglers from CESR Arcs

- Characterize newly installed diagnostics and cloud growth in CESR dipole chamber.
- Work with an intermediate emittance (7 nm) lattice and start beam-based alignment program.
- Instrumentation tests/development



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CesrTA Runs																											
CHESR Runs																											

- Reconfigure CESR for ultra-low emittance
- Install positron xBSM optics line
- Start deployment of new BPM system
- Upgrade survey network and alignment hardware
- Install instrumented vacuum section in L0 (CLEO IP)
- Install instrumented vacuum system in L3 (CUSB IP)
- Remove all wigglers from arcs and re-deploy in L0
- Deploy first instrumented wigglers in L0 (2?)
- Deploy vacuum diagnostics with wiggler replacement chambers in CESR arcs
- Deploy L3 diagnostic chicane?
- Complete upgrade of transverse feedback system for 4 ns bunch spacings



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CHES Runs																											

- “Run 2” was recently split into 2 pieces, 2a and 2b
 - Accommodates CHES request
 - Removes stress of a single long dedicated CesrTA run
 - Adds time to think between CesrTA periods
- xBSM optics commissioning
- BPM system commissioning
- Beam-based alignment effort
- Test ultra low emittance lattice for first time
- Characterize electron cloud growth in chambers around the CESR ring (wigglers, dipoles and drifts)



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- Install instrumented vacuum chambers and chambers with EC mitigation techniques
 - Additional wiggler chambers
 - Additional dipole chambers
 - First quadrupole chamber diagnostics
- Continue deployment of new BPM system
- Continue upgrade of survey network and alignment hardware



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- Some adjustment to the exact schedule for Run 3 is likely
- BPM system commissioning
- Beam-based alignment effort
- Low emittance tuning work
- Characterize electron cloud growth in chambers around the CESR ring (wigglers, dipoles, quadrupoles and drifts).
- Evaluate efficacy of EC mitigation techniques



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- Install instrumented vacuum chambers and chambers with EC mitigation techniques
 - Additional wiggler chambers
 - Additional dipole chambers
 - Additional quadrupole chambers
- Planned installation of electron xBSM optics line
- Planned installation of photon stop for 5 GeV wiggler tests in L0
- Complete longitudinal feedback upgrade for 4 ns bunch spacings



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- Major focus on low emittance tuning effort
- Beam dynamics studies spanning a range of emittances
- Tests with wigglers at 5 GeV
- Commissioning of electron xBSM optics line
- Characterize electron cloud growth in chambers around the CESR ring (wigglers, dipoles, quadrupoles and drifts).
- Evaluate efficacy of EC mitigation techniques



Down 5

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- Deploy final vacuum chambers with EC mitigation for testing