ATF REVIEW on MAGNET COMPRESSOR

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- WHY
- WHAT
- WHO
- WHEN

WHY

- Many ATF experiments will benefit.
- Many interesting physics.
- Photo-injector not only good for transverse emittance, but also good for longitudinal emittance.

Magnet compressor is unique because it is part of facility, and also is a user experiment. **We can not afford any mistake.**

What

- Do no harm! - ATF must be able to operate as now when magnet is off.
- Physics issues:

1. Assumptions.
2. R_{56} operating range.
3. Nonlinear effects
4. Jitter and phase stability requirements
4. Matching optics
5. Emittance growth
6. Beam diagnostics

- Technical issues:

1. Layout - interference.
2. Magnet design
3. Magnet measurements.
4. Vacuum chamber
5. Support and alignment system.
6. Installation