ATF/ATF2 international collaboration by March 2013

- Budget request by March 2013 and possible budget situation (very severe)
- ATF Schedule
- Ongoing R&D
- Future R&D Item for ILC

ATF Schedule

JFY	JFY2010	JFY2011	JFY2012	JFY2013	JFY2014	JFY2015
Low emittance beam	June					
	A Beam tuning 10 pm → 1pm -2pm					
	DR BPM upgr	ade				
Stabilize Multi Bunch	LINAC/DR adjustment					
	Ma	arch	/			
Fast Kicker	Beam tuning	Routine operation	ation(extract m	ılti bunch)		
(extract multi bunch)						
ATF2 35 nm beam size (Single Bunch)	Adj. Shintake r	nonitor				
	Beam tuning verification		35nm opera	on		
Stabilize ATF2 2nm	R&D (2nmBPM, Fast FB)					
beam (Multi Bunch)			Beam tuning	2nm stability Ra	&D 2nm op	eration
					instali	
SC FD-Q vibration beam test	design	fabrication	SC	Q test (BNL)	Be	am test
	Cryo. cooler (KEK)				
L						

Ongoing R&Ds at ATF/ATF2

ATF

- low emittance beam
 - Tuning, XSR, SR, Laser wire,...
- **1pm emittance** (DR BPM upgrade,...) ۲
- **Multi-bunch** ۲
 - Instability (Fast Ion,...) ٠

Extraction by Fast Kicker

Others

- **Cavity Compton**
- SR monitor at FXT
- ATF2 ٠
- 35 nm beam size
 - Beam tuning (Optics modeling, Optics test, debugging soft&hard tools,...) •
 - Cavity BPM (C&S-band, IP-BPM) ٠
 - Beam-tilt monitor •
 - IP-BSM (Shintake monitor) ٠
- Beam position stabilization (2nm) ٠
 - Intra-train feedback (FONT)
 - feed-forward DR->ATF2 ٠

We also confirmed the dispersion correction of the ATF2 beam line by the beam profile change of the MS1IP wire scanner (Figure 8). The measured size was limited to 1.4um due to the wire size.

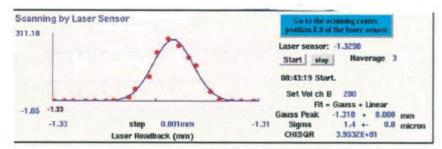


Figure 8 Sample of the vertical beam size measurement

Efficient $R\&D \leftarrow Stabilization of$

LINAC/DR

Others

- Pulsed 1um Laser Wire
- Cold BPM
- •Liquid Pb target
- Permanent FD Q
- SC Final doublet Q/Sx

Superconducting Final Focusing Magnet

