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E-JADE Mid-Term Review

ILC background studies at

ATF & the University of Tokyo

March - April 2016

Anne Schütz / WP 2, 3

E-JADE is a Marie Skłodowska-Curie Research
and Innovation Staff Exchange (RISE) action,
funded by the EU under Horizon2020



My Ph.D.

- Ph.D. at Desy, Hamburg
- Associated with KIT, Karlsruhe



- Ph.D. topic:
“Optimizing the Final-Focus Region of the International Linear Collider”



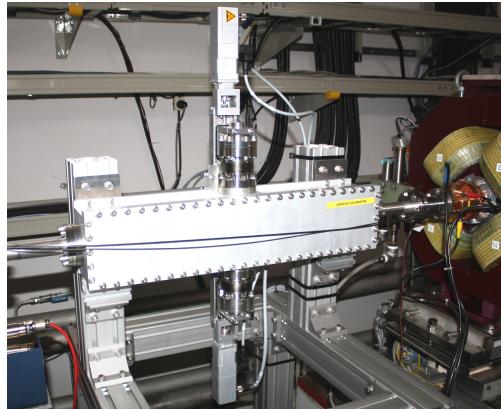
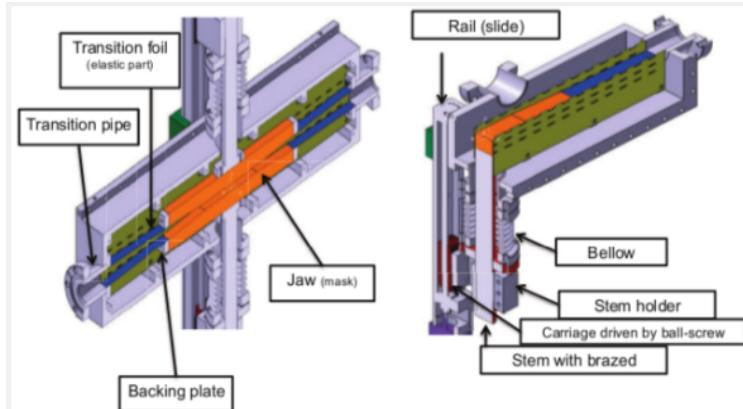
Simulations of the ILC machine background wrt a possible optimization of the final-focus region

- Practical experience at KEK in Japan:
3 ½ weeks at KEK to join the ATF beam time in March
5 weeks at the University of Tokyo

8 ½ weeks of fun in Japan!

Project at ATF2

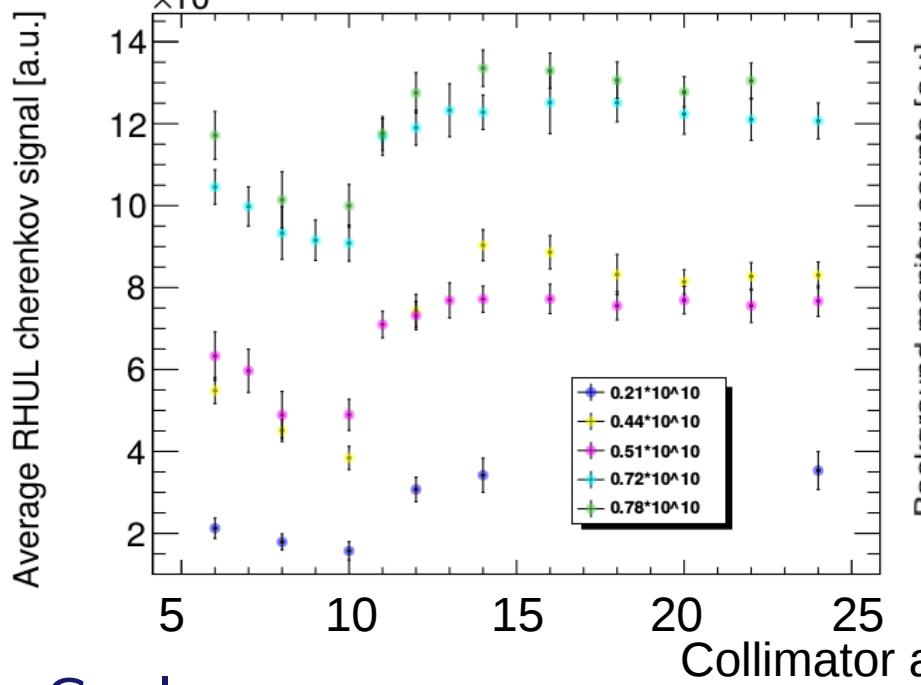
Testing the performance of a recently installed vertical beam halo collimator [Nuria Fuster Martinez (IFIC) et al.]:



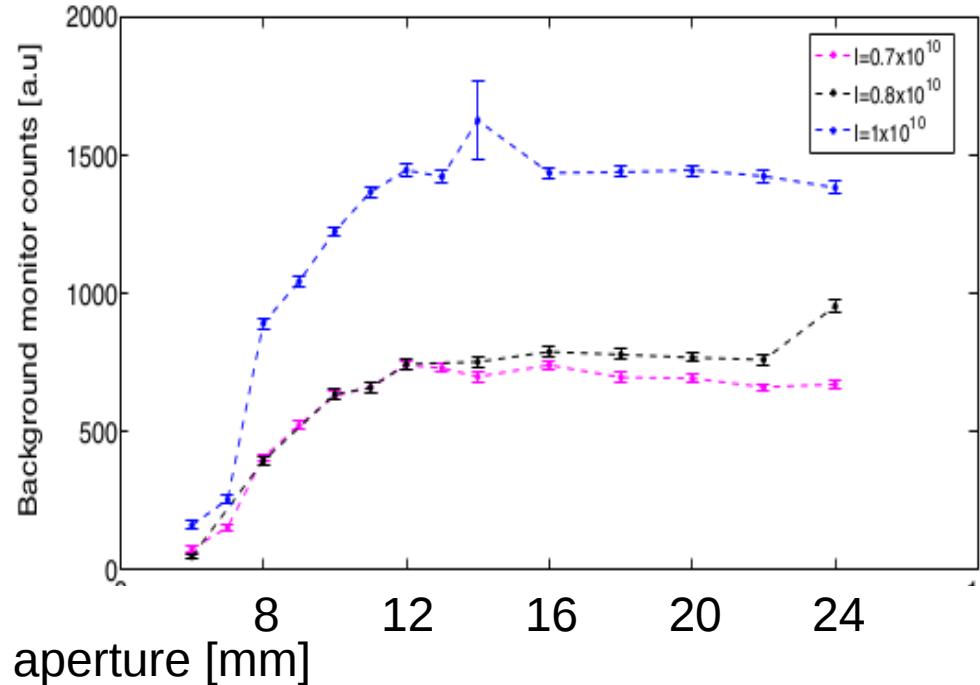
- Participation in the ATF2 beam operation time, operation of the ATF beam
- Measuring the background production/overall-reduction in dependency of the collimator apertures
- Analysing the data whilst being in the working group around Sachio Komamiya-san in the Particle Physics Department of the University of Tokyo

Project at ATF2 – Results and goals

Cherenkov detector close to collimator



Background monitor at IP



Goals:

- Simulation of ATF2 and the effect of the beam halo collimator with BDSIM [RHUL]
- Paper about the vertical beam halo collimator with results from beam time at ATF

Gained experience and new friends

- ATF is an international collaboration:
people from Japan, America, UK, Spain, France, China, ...



- Working group around Komamiya-san (University of Tokyo):
Master and Ph.D. students from Japan, post-docs and
researchers from Japan, China and Europe



Gained experience and new friends

- Japanese language courses: VHS in Hamburg and COTO language academy in Tokyo
- Trips to several places:



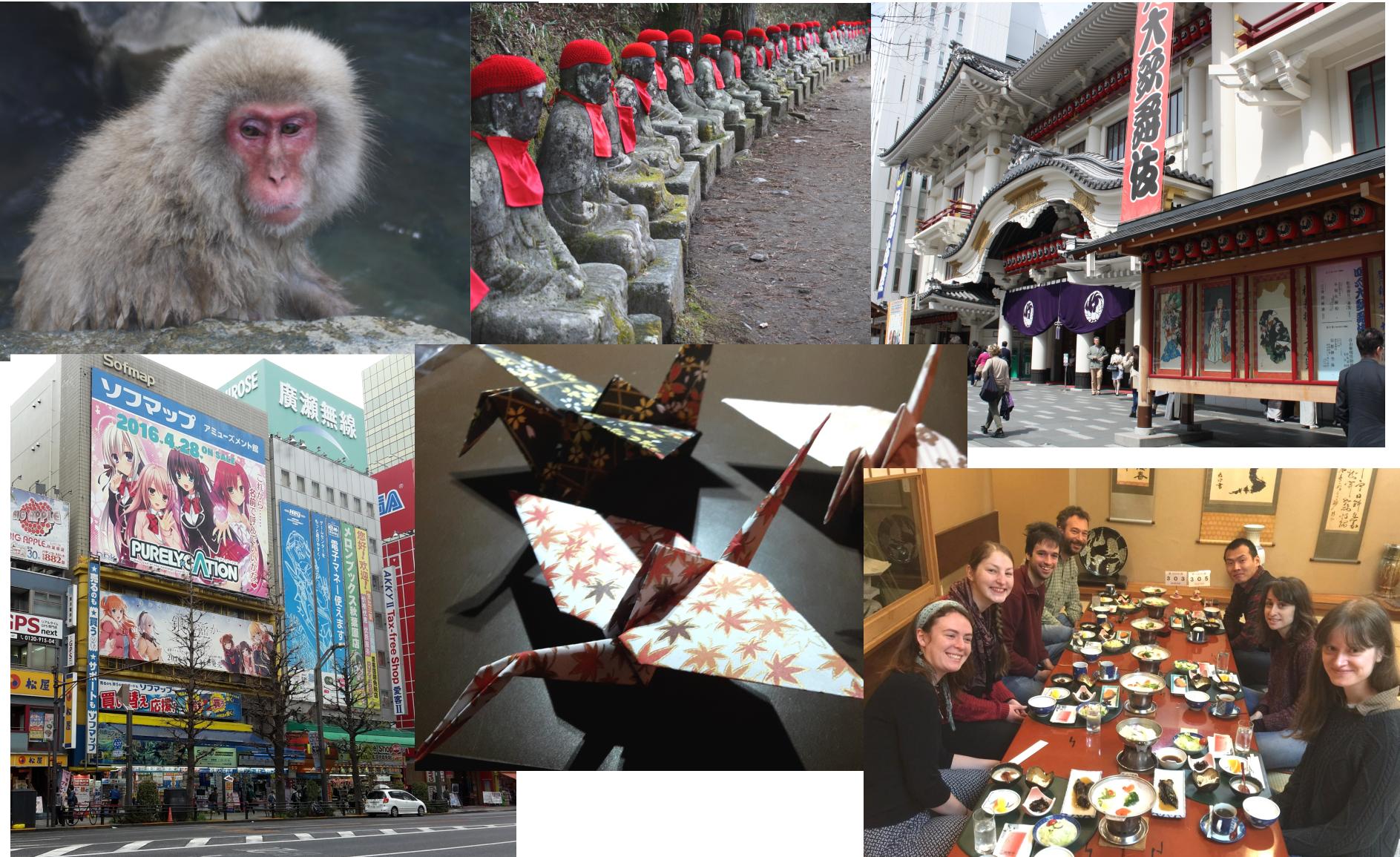
- Pen pal:

Yuichiro Tabaru
met on the train to
Nikko



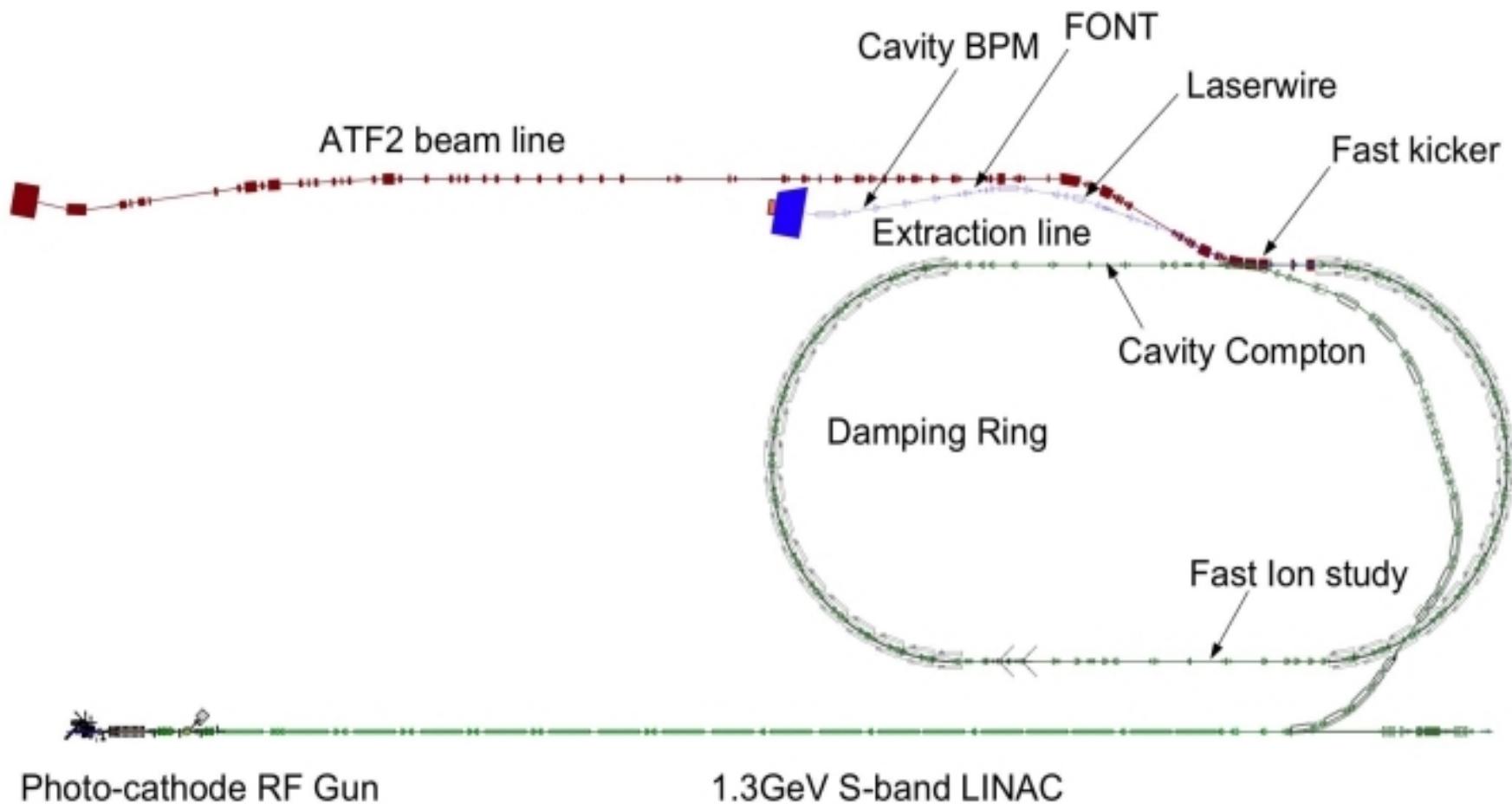
Backup

Gained experience and new friends



Project at ATF2

The vertical beam halo collimator is installed in the ATF2 extraction line:



Project at ATF2

The vertical beam halo collimator is installed in the ATF2 extraction line:

