Some reflections on my career

T. Matsui

The Open University of Japan

1 Few reminiscences on how I entered this field

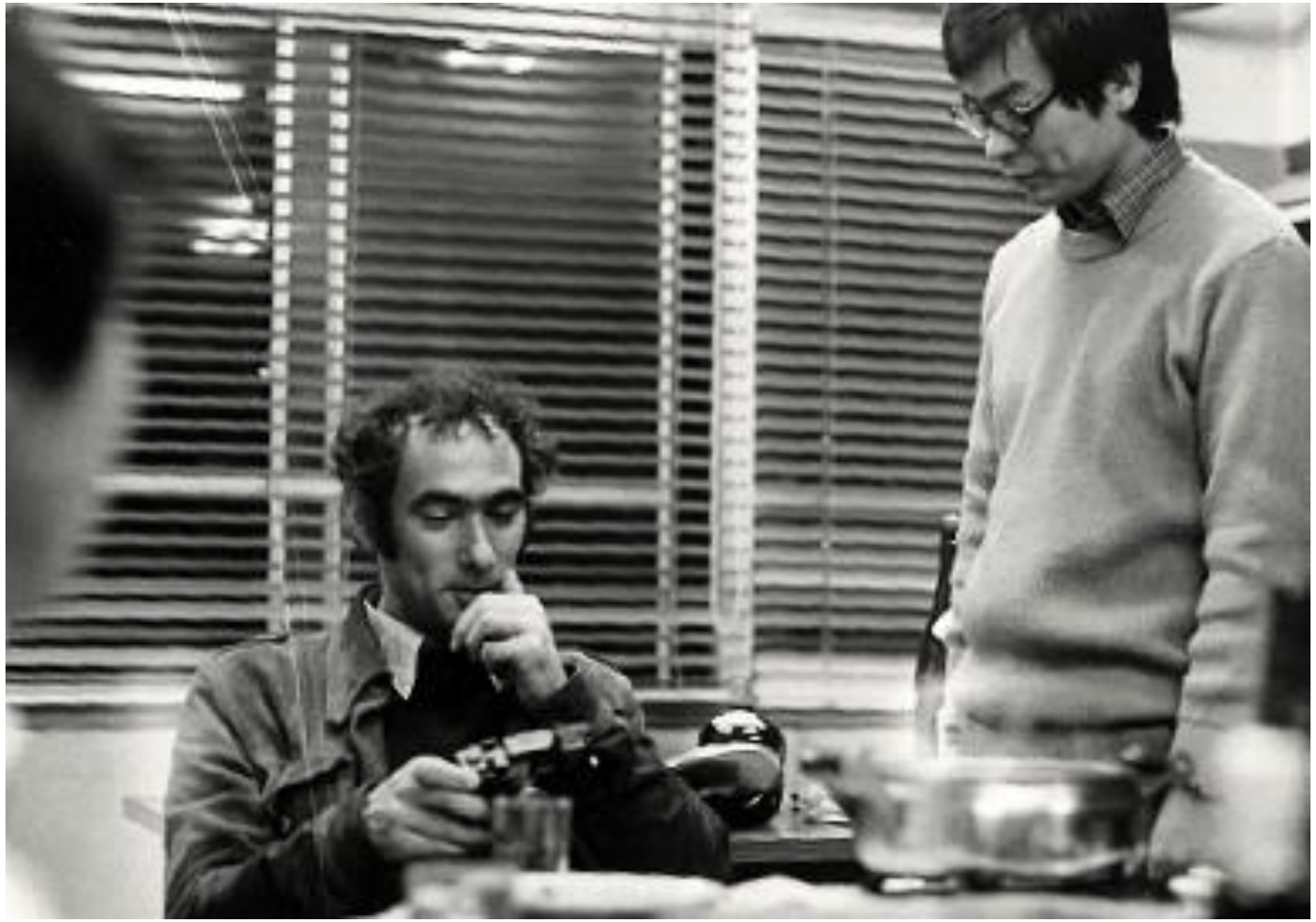
- Student days in Japan
- New beginning in the US

2 New challenges at the Open University of Japan

- Three works at OUJ
- From my recent new work

Student days in Japan

- Moved from Kyoto to Nagoya in 1975: another KM effect?
- Start graduate work on theoretical high density matter
  under the guidance of Yasuno-san
- No nuclear experiment in Nagoya, but close to Nagamiya-san
- Distinguished visitors in 1979:
  G. Baym, lectures on neutron stars
  R. Hofstadter, a seminar on charmonium spectroscopy



Gordon Baym and me in Nagoya (1979)

New beginning in the US

- 1980: new start in the group of D. Walecka at Stanford
  theoretical works on a relativistic mean field theory
- 1982: start doing theoretical works on relativistic HIC at LBL, Berkeley
  work with local people N. Glendenning and M. Gyulassy and met
  distinguished key participants, L. Van Hove, H. Satz, L. McLerran, ・・・
- RHIC project to go at BNL announced at QM1983
- 1984: moved to MIT and worked in many distinguished people at CTP

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J/ψ SUPPRESSION BY QUARK-GLUON PLASMA FORMATION

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ABSTRACT

If high energy heavy ion collisions lead to the formation of a hot quark-gluon plasma, then colour screening prevents $c\bar{c}$ binding in the deconfined interior of the interaction region. To study this effect, we compare the temperature dependence of the screening radius, as obtained from lattice QCD, with the J/ψ radius calculated in charmonium models. The feasibility to detect this effect clearly in the dilepton mass spectrum is examined. We conclude that J/ψ suppression in nuclear collisions should provide an unambiguous signature of quark-gluon plasma formation.

J/ψ SUPPRESSION BY QUARK–GLUON PLASMA FORMATION ☆

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Old joke in particle physics:
Yesterday's great discovery is
today's daily work and tomorrow's background!

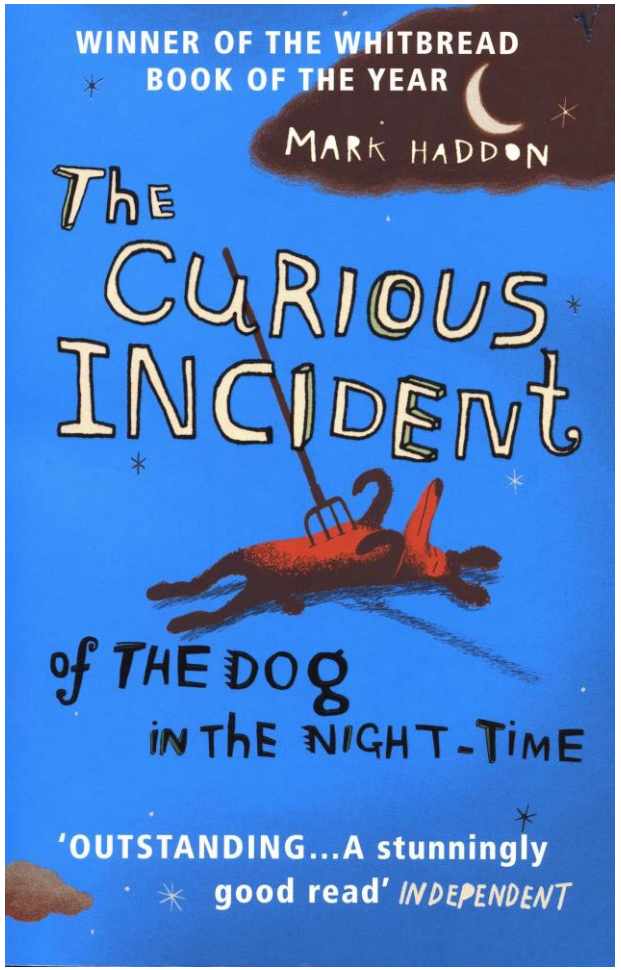
We proposed instead:

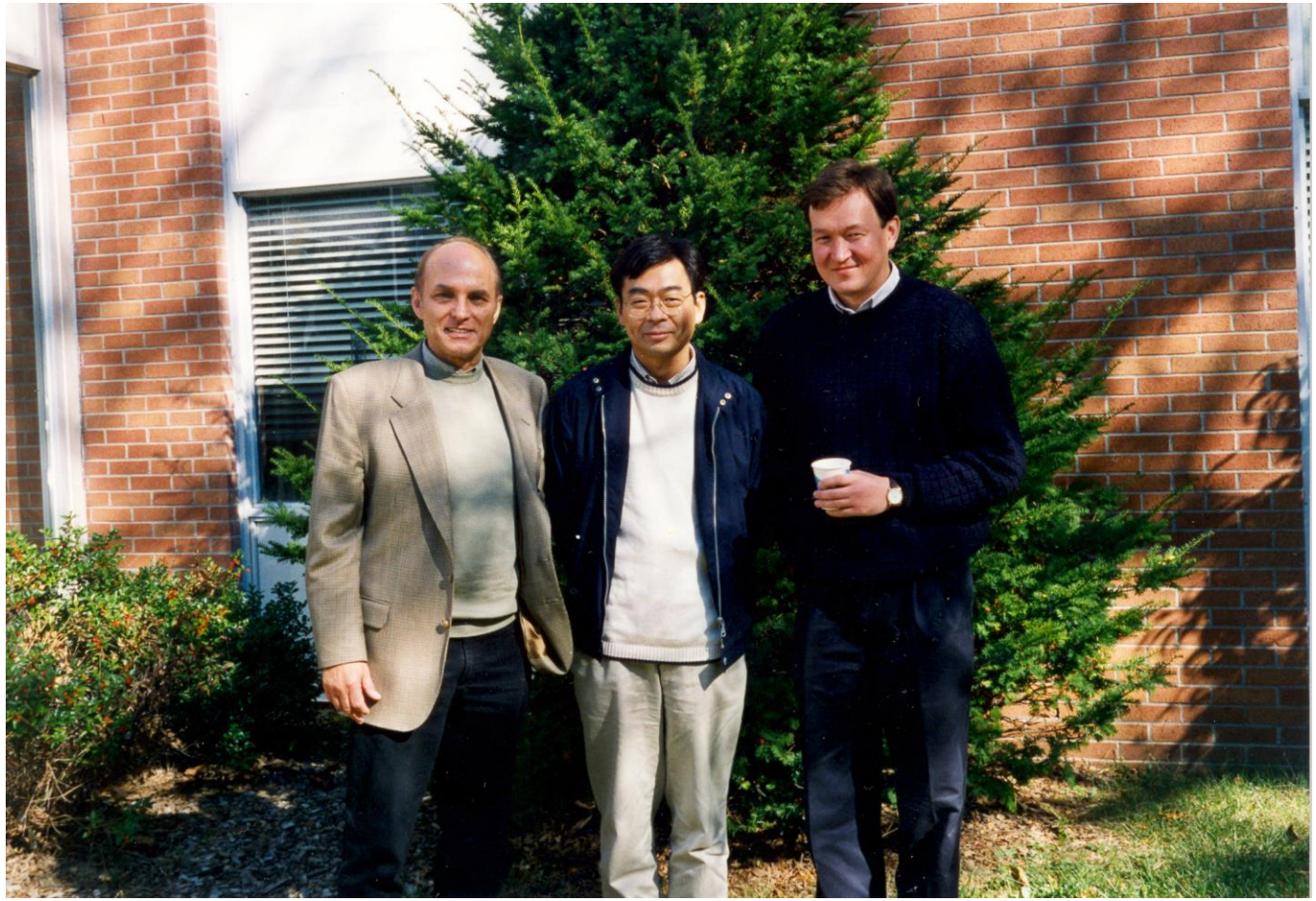
Signature is the absence of a signature!

A quote from a detective story:

"Is there any point to which you would wish to draw my attention?"
"To the curious incident of the dog in the night-time."
"The dog did nothing in the night-time."
"That was the curious incident", remarked **Sherlock Homes**.

learned from L. Grodzins at MIT





Helmut Satz, me and Dima Kharzeev (1998)

New Challenges at OUJ

- Making regular video lectures for OUJ students

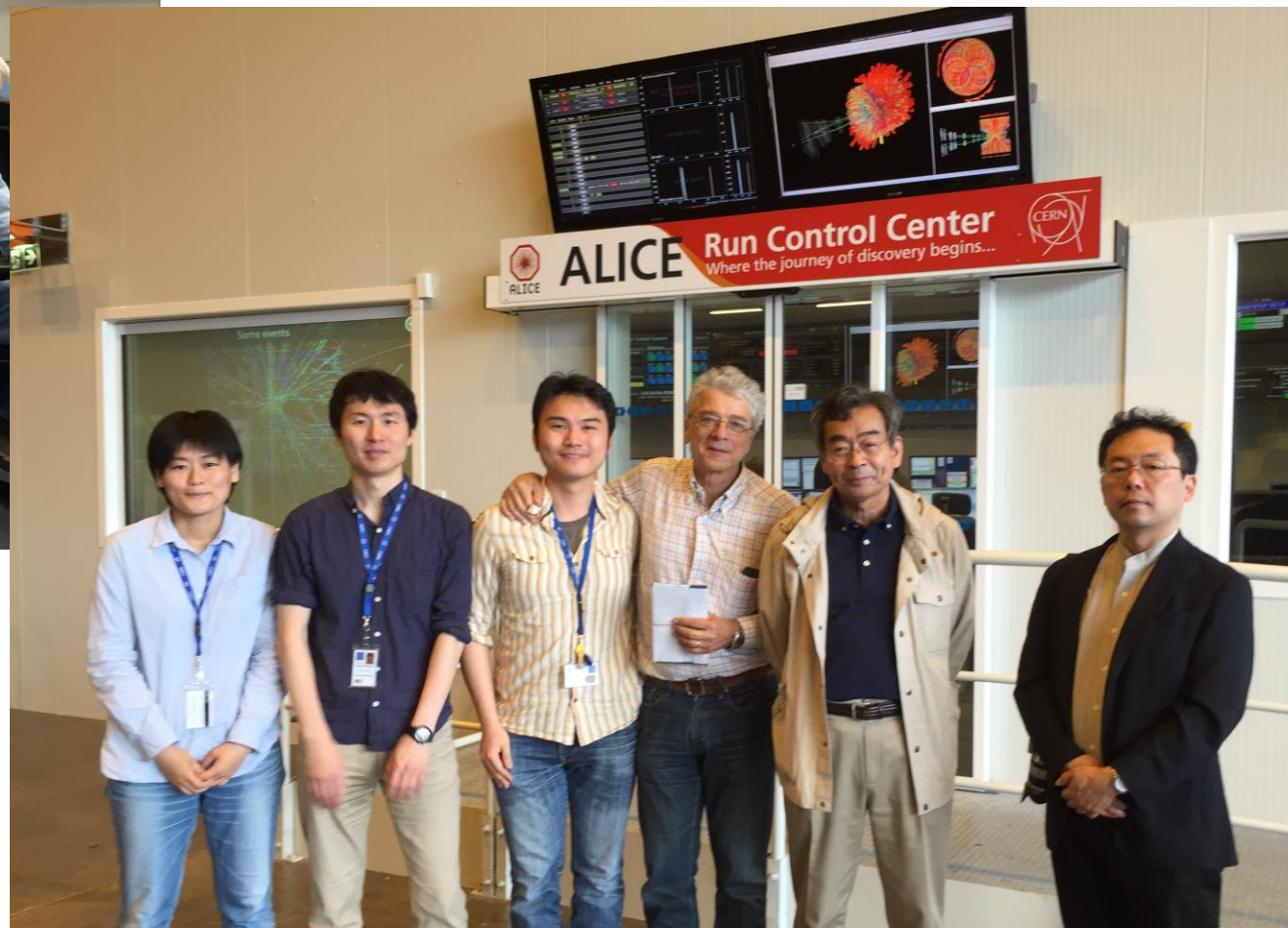
  Basics to advanced in physics, interviews at CERN

- Planning special programs for general audience

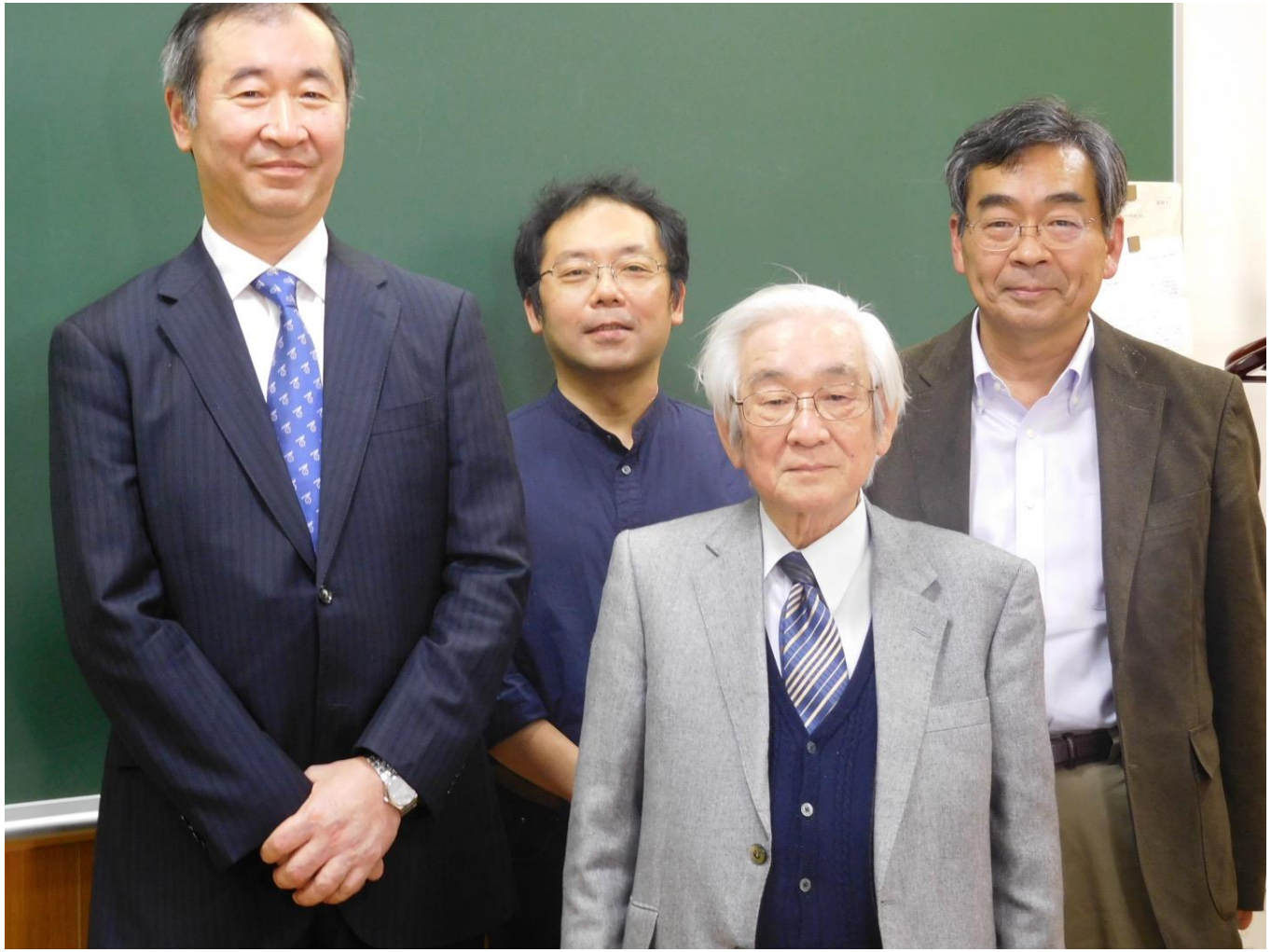
  Maskawa, Kajita, Leggett, “What is the mass?”

- Bonus lectures at local OUJ centers in Japan

  8 visits including Okinawa, Sapporo



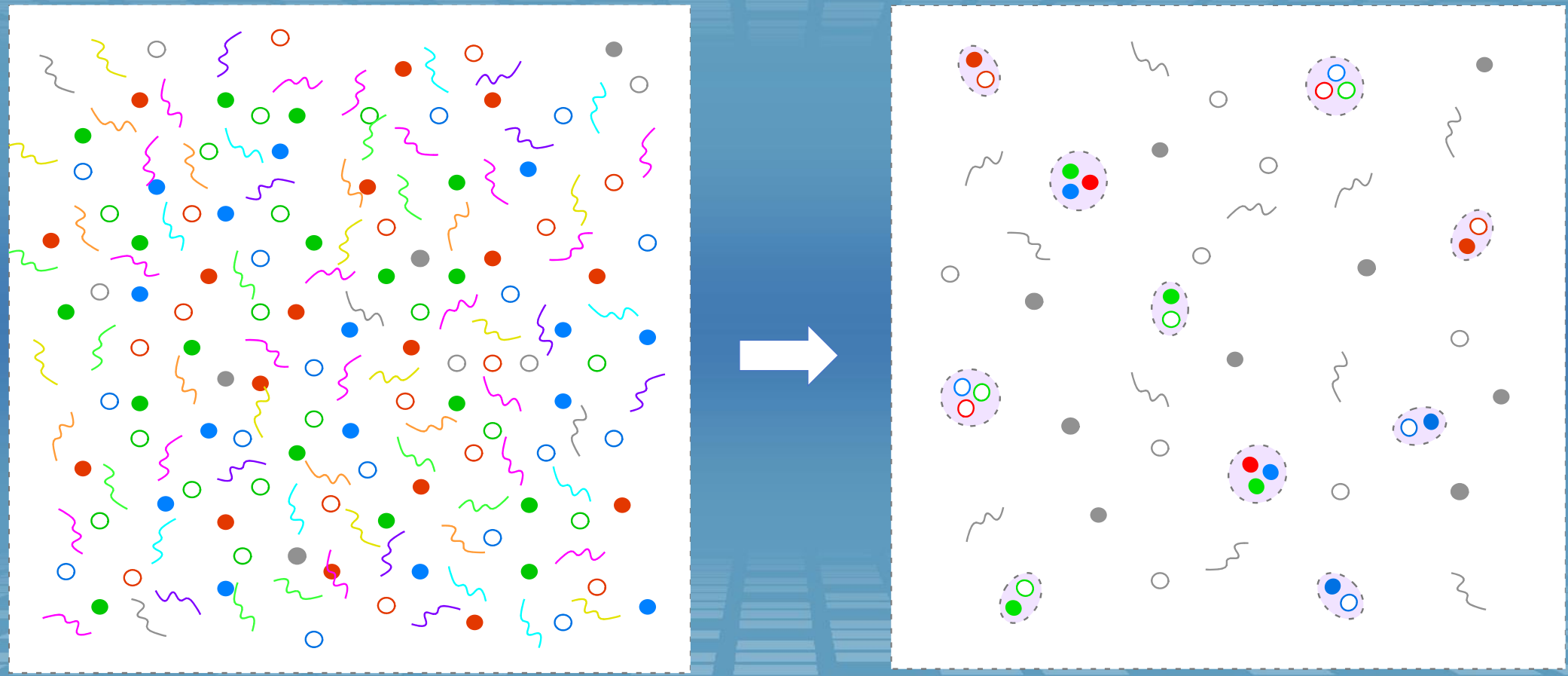
ALICE at CERN (2016)



At the Nagoya location in 2017

Kajita, Kishine, Maskawa, me

消えたクォーク・グルーオン プラズマ



Extinct quark-gluon plasma in the early universe

From my new work:

On Einstein in Japan

- Einstein came to Japan from Nov. 17 to Dec. 29, 1922

  On the way, he learned of his receiving 1921 Nobel Prize in Physics.

- His lifelong commitments to the world peace against nuclear weapons

  He hiked on the island of Itsukushima, but did not visit Hiroshima.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In closing

- I thank many wonderful people I met in my career.
- Without them my life would have been very boring.
- I wish you all the best of lucks in your future careers!