

# Toshiko Yuasa

Emi KOU

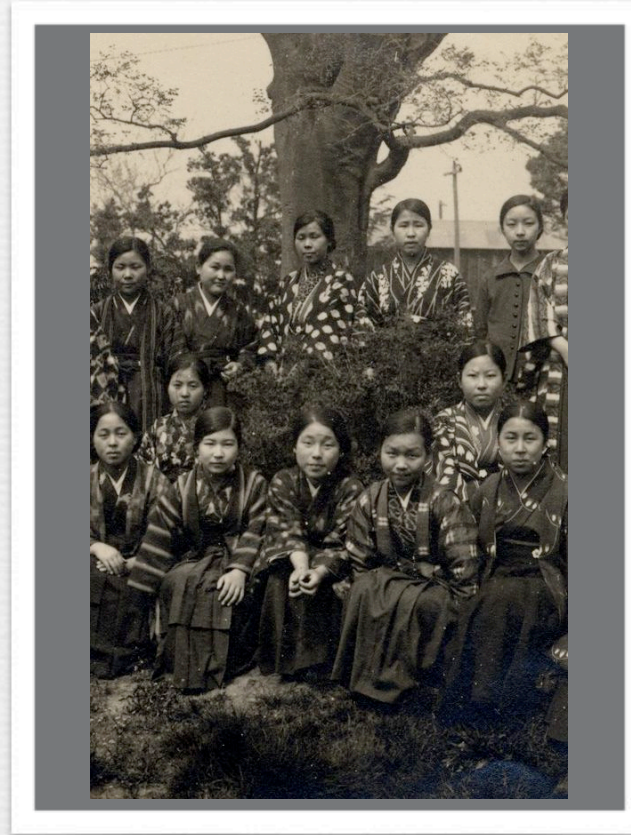
(Laboratoire de Physique Théorique, Univ. Paris XI )

# Toshiko Yuasa (1909-1980)

- ❧ CNRS researcher (appointed 1949)
- ❧ First Japanese female physicist (1943)
- ❧ Initiator of a nuclear physics project in the framework of the CNRS/JSPS corporation (1981)
- ❧ The year 2008: an event in her honour will take place as part of the CNRS initiative for the 150th anniversary of France-Japan diplomatic relationship

# Toshiko Yuasa

- ❧ *1909* Born in Tokyo, Japan
- ❧ *1927* Major in science at Tokyo “École Normale Supérieure” for women (Ochanomizu Univ.)
- ❧ *1934* Diploma at Tokyo Bunrika Univ. (now Tsukuba Univ.) research in spectroscopy
- ❧ *1939* She passed the exam for the French governmental fellowship (BGF).

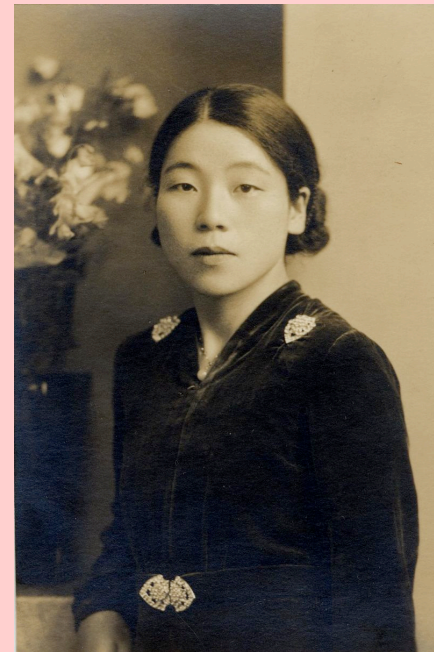


1927 (18 years)



# Arrival in Paris (1940)

- ☛ She arrived in Paris after a month sailing on March 2nd 1940.
- ☛ Under difficult circumstances, she was accepted to work at College de France with Joliot-Curie and started her research in April 1940.



1940 (31 years)

# Devotion to physics

- ❧ She started working on beta-decay using the cyclotron at College de France (first one in Europe).
- ❧ *Dec. 1943* French PhD  
“Contribution à l’étude du spectre continu des rayons beta émis par les corps radioactifs artificiels”
- ❧ *Dec 1944-April 1945* Berlin University: construction of double spectrometer



1941 (32 years)

# Anchoring in Japan (1945-1949)

- Teach at Tokyo “École Normale Supérieure” for women (Ochanomizu Univ.)
- Research at Nishina Laboratory of RIKEN

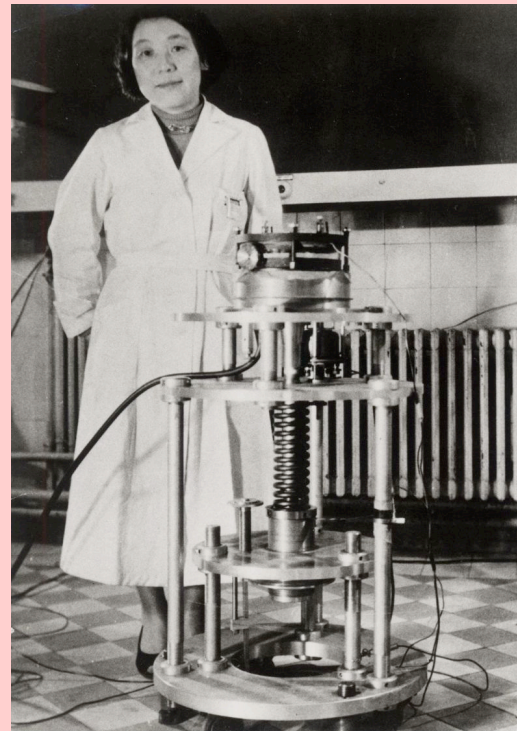


1948 (39 years)



# Settling down in Paris

- ❧ *5th May 1949* CNRS chargé de recherche, Collège de France
- ❧ *1972* CNRS Directeur de recherche, IPN (Orsay)  
*1975* CNRS Maître de recherche honoraire
- ❧ *March 1962* PhD from Kyoto Univ. “Étude du type d’invariant de l’interaction Gamow-Teller en désintégration beta de  $^6\text{He}$ ”



1957 (48 years)

# Two visits to Japan

- *Aug-Oct 1967*  
*Aug-Oct 1977*  
Visit Japan as invited speaker for International Conference on Nuclear Structure in Tokyo
- Inviting Japanese students and collaborating with Japanese physicists
- Publication of three essays





# CNRS/JSPS collaboration

- Proposal 1978: investigation of triplet interactions in fission of  $^3\text{H}$  or  $^3\text{He}$  by incident proton (Yuasa/Yanabu)
- Experiment at IPN (Orsay) 1981: H.Langevin-Joliot and T. Yanabu



1976 (67 years)

## Two-spectator quasifree scattering process in the $^2\text{H}(\text{d,pn})\text{pn}$ reaction at 108 MeV

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Deschamps, Hourani, Langevin-Joliot

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# Recognition in Japan

- From Japanese government,  
1976 Medal (Shiju-hosyo).  
1981 Order (Kun-San-tou)
- Yuasa's archive  
(documenting the first  
internationally recognised  
Japanese female physicist)
- Yuasa's fellowship for young  
women scientists since 2002  
(Ochanomizu University)



1978 (69 years)



# FJ 150th anniversary

- Memorial event at the CNRS headquarters in October 2008 for the occasion of the 150 anniversary of the French-Japanese diplomatic relation.

