1998 – 3 months **fellow at RIKEN, Wako-shi, Japan** won in an international competition from the Ministry of Education, Culture, Sport, Science and Technology, Japan.

I worked in the lab lead by **Professor Isao Tanihata**, for:

- preparation of 5 experiments, carried out in parallel by the team of Professor Tanihata
- complete one experiment carried out under the direction of Dr. Zsolt Fulop from Hungary:
    - -*The half-life determination of ^{44}Ti using radioactive beam technique* (beam ^{44}Ti, E=59AMeV, the target was the same plastic scintillator detector used as implantation material for ^{44}Ti; beam ^{22}Na E=70AMeV, the target was the same plastic scintillator detector material used for implantation; I modified the acquisition program while the experiment was running, according to ad-hoc necessities)
- presented a seminar on calculations for one neutron emission probabilities out of merging ^{11}Be with ^{28}Si and with ^{12}C at intermediate energies; the neutron pre-emission calculation probability for the merging of ^{11}Be with ^{12}C, I used neutron wave functions from Dr. Florin Carstoiu:
    - -*Sharp cut-off approximation for neutron pre-emission for ^{11}Be fusion with ^{12}C.*
- I participated to Dr.Morimoto's experiment (beam ^{40}Ar, E=95AMeV, target ^{9}Be, thickness =0.5mm, experimental setup made of 3xPPAC, 2x scintillators, SSD, 2xMUSIC, fiber scintillator, small scintillator, CAMAC). The experiment goal was to understand how the detector 'fiber Scintillator' type, used for the first time, is functioning. I participated in the construction of the experimental setup.
- - During this period, I participated in experimental preparations for Dr. Khiem, the 'production cross section'. I made Monte Carlo calculations to determine the fragmentation cross-section for nuclei far from stability such as $^{46-58}$Ca, $^{48-59}$Sc, $^{48-59}$Ti, $^{48-59}$V, $^{48-59}$Cr, $^{50-59}$Mn, $^{50-59}$Fe. Also, through Monte Carlo method, I determined the isotopic distribution of the reaction product for beam ^{59}Co, energy 80AmeV, target ^{9}Be. I could not participate to the experiment as my fellowship at RIKEN came to an end.

For the experiment in which I collaborated at RIKEN, I made changes to the:

- Data acquisition program, trigger logic,
- Software for PPAC (Parallel Plate Avalanche Counter) and

I wrote the calculation routine for the degrader adjustment used in the energy selective reduction of the cyclotron particles.