

Memories of Professor Iwasawa

Masato Kurihara

During the editing of this volume, I felt as the chief editor that it would be better if there would be an article explaining the days of Iwasawa in Japan after his retirement from Princeton. I could not find a suitable person to ask to write on this, and so I finally decided to write a short article on it myself.

My first direct memories of Professor Iwasawa are when I had the opportunity to attend his talk in a number theory conference at RIMS, Kyoto in December 1987, the year Iwasawa came back to Japan. At that time I was a Ph.D. student at the University of Tokyo, and studying higher dimensional class field theory as a student of Professor K. Kato. In the conference at RIMS, I also gave a talk, which was my first experience giving a talk in a conference, on my result [5] on the description of abelian extensions of certain complete discrete valuation fields with *general* residue fields. Iwasawa talked on some problems on cyclotomic fields (see [1], [2]), and it was so impressive for me. It was done in his legendary style using no notebook nor memo, and perfectly organized. I knew nothing on Iwasawa theory at that time, but concentrated on his lecture and waited for what would happen next in the lecture. One hour had passed in a moment like a movie. The protagonist $\mathbb{Q}(\mu_p)$ who had been a simple object in my mind before his talk changed to be a mysterious and interesting target after his talk.

Next year I heard from H. Ichimura, whose speciality is Iwasawa theory, that every Saturday a seminar was held at Komaba campus, which Iwasawa attended with G. Fujisaki and S. Nakajima¹. I became a regular member of the seminar. When I first attended it, the participants studied de Shalit's notebook on elliptic curves, but soon after that, the style of the seminar changed, and the participants could talk on any topics they liked. I had an idea to get a small partial answer to support one of Iwasawa's conjectures he talked in Kyoto on $\mathbb{Q}(\mu_p)$, using the

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¹In those days the department of mathematics was in Hongo campus (the main campus of Tokyo University) though it is now in Komaba campus.