

# Adiabatic Approach to Milla Baldo-Ceolin

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Contribution to the XV International Workshop on Neutrino Telescopes

Dieter Haidt, DESY, March 12, 2013

## X2

Milla's group participated in the X2 experiment. Its aim was to study the semileptonic decay  $\tau^+ \rightarrow \tau^0 \tau^+ \tau^+$  in the Ramm 1.2m heavy liquid bubble chamber. There were 9 participating laboratories, among them Padova and Aachen, thus myself as PhD student. I got familiar with Milla's young collaborators Sergio Ciampolillo and Eugenio Calimani. I saw Milla for the first time in one of the collaboration meetings taking place in the NPA seminar room of CERN in 1966. This was a most memorable appearance : she entered the room, spoke for 15 minutes without interruption and left. Everybody was impressed by her performance. At that moment I also met Jay Schneps and later, at the Heidelberg High Energy conference 1967, also his wife Lucia. They told me about the institute of Padova.

Many years passed until I really met Milla from person to person. This happened in several steps.

## Jack Fry

Sergio Ciampolillo was working with Jack Fry and told me about his making violins at Madison. One day in 1972 we, Sergio and myself, left the CERN cafeteria and there was Jack Fry standing with a violin in his hand. I approached him and since he was, like me, a member of the Gargamelle collaboration we got together for physics and violins. Jack was building about one violin per week and I had the pleasure to play them. We got involved in the neutral current search and worked on the neutron background problem. At the spring meeting of the Gargamelle collaboration Lagarrigue presented an optimistic view of the neutral current search. We dared to contradict Lagarrigue and had a hard time until we succeeded in solving the background problem. You know the story and some of you were critical observers. Jack returned to the States. When Rousset, the head of the TCL division, left for Paris he transferred to me

the leadership of the neutrino-propan collaboration. There was again Milla's group. Now I had several times the occasion to visit the physics Institute of Padova and finally met Milla in person. We had many discussions on detecting neutral current processes, in particular in the context with her experiment NUE (Aachen-Padova). She appreciated the experience from the bubble chamber Gargamelle in distinguishing electrons from gammas. (1977 Ben Lee Memorial).

### Venice Neutrino Meetings

It was Milla's great achievement to organize the conference *Neutrino Telescopes – guardare il mondo in un altro modo*, and thus creating a forum for experts all over the world to discuss neutrino physics. It was Jack Fry who arranged for me to be invited to this conference series. Milla was by now the *Signora dei neutrini*. After the discovery of neutrino oscillations Milla organized a special meeting 2001 to discuss in depth all relevant issues. She never forgot to give to the meetings also a cultural component. It was her marvelous idea to ask Jack Fry for a contribution *oscillations on violins*. So Jack arrived with three violins: a miserable one for 20 Dollars, a medium quality instrument (my own) and his best creation a *Bergonzi*. Everybody agreed that the miserable violin indeed sounded miserable. He then entered with a little tool and scraped away wood at sensitive locations at the inside of the top. After three or four trials the audience was amazed to notice the difference and the improvement in quality. The two conferences NO-VE and NEUTEL were from then on held alternatively.

After more than 20 years of organizing some of the participants close to Milla spread the rumor that she got enough. After the conference she invited a few to a reception in a palace at Padova and all thought this is to celebrate the end. The choice to give an afterdinner speech fall on me. I pressed every botton. Sure of myself I started to quote from the Divina Commedia

*Le cose tutte quante*

*Hann' ordine tra loro, che è forma*

*Che l'universo a Dio fa simigliante*

And suddenly I could not remember the next *terzina*. Without hesitation Milla continued

*Qui veggion le alte creature l'orma*

*Dell'eterno valore il quale è fine*

*Al qual'è fatta la toccata norma*

**It was a real privilege to have been considered a friend by Milla**