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Remembering Aldo Andreotti

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Remembering Aldo Andreotti

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I went to Stanford to study probability theory and indeed did so for several years. However, my appetite for complex analysis had been whetted by a beautiful basic course given by Max Schiffer, and my interest in probability theory had wavered. At that point Royden encouraged me to think about some questions having to do with function algebras and which involved the basics of several complex variables. Even though good literature had started appearing in the US, for example the books of Gunning and Rossi and of Hörmander, and Narasimhan's Springer Notes, I was struggling to learn this on my own.

Andreotti changed everything for me. It began with his very first Stanford lecture. He was tired, the trip was too long, he couldn't think. A drop of sweat on his upper lip, he was wearing his old green cartigan sweater, pacing back and forth. In one sentence he could radiate deep culture while simultaneously being human, playful and very funny! The mathematics that was to come was incredibly beautiful, in particular, the clarity and simple elegance of its presentation.

I shall be forever thankful to Aldo for introducing me to his and in particular also to Grauert's way of thinking. I still feel it very strongly! I still feel the color of his personality-having fun looking for ideas under a piece of paper, talking about the sheaf space as a "spazio lasagnato", referring to a deformation of a discrete group as an earthquake caused by the gods (By the way, he was religious!). On the other hand he could be firm: He asked me to write the notes of the course (since revised by others several times to a beautiful form), requiring me to appear at his home on the weekend for corrections. Toward the end of the course he simply stopped lecturing and told me to lecture on two papers (L1, L2) of Hans Lewy. He had the greatest respect for Lewy and had already intensified his interests in systematically understanding the phenomena (analytic continuation of solutions of tangential Cauchy-Riemann equations) being discussed in these papers. This material was of course not new to him, but he always was very happy to slowly think through things again in order to achieve even more clarity. At that time the audience had diminished to Andreotti, Stoll and (I think) Denny Hill, a no-lose situation for me, but I didn't know it at the time! This continued on into the second semester when he told me to continue lecturing to him and Stoll on various analytic topics. We focussed on the work of Kohn and Rossi (KR) on continuation of solutions of the CR-equations from the boundary of a manifold and the background analysis mainly due to Kohn. It was not easy; there were many sleepless nights, but of course I couldn't have been luckier.

He and Stoll were different kinds of mathematicians, but they worked very well together. As do many of us, Aldo often joked about Stoll's voluminous manuscripts. I remember one day in Pisa when Stoll's version of their "paper" on pseudoconcave maps appeared for Andreotti's final approval: Aldo told me that a truck had stopped at is house to deliver it!

Andreotti understood the power of analysis, but his thinking was guided by geometry. After these days at Stanford and my postdoc period in Pisa, we did have several detailed discussions and wrote a small paper (see H1 for more technical details on this period). However, most of our discussions were devoted to pinning down what needed to be done in various areas of complex geometry, in particular from the point of view of symmetry. These contacts with Andreotti had strong influence on my own early work. Principles involving pseudoconcavity coming from Andreotti's basic paper (A), his work with Grauert (AG) and works of Barlet, which have their genesis in Andreotti's joint paper with Norguet on cycle spaces (AN), have even quite recently guided my thinking (see H2).

Returning to Andreotti the person, it should be noted that Aldo could get very mad and of course had the appropriate command of his mother language to express his feelings. He hated inefficiency and bureaucracy. I remember when he got completely fed up with faculty meetings; so in order not to attend them any more he submitted a formal excuse written by his young daughter!

Aldo loved music and art. He had rather classical taste, I think relating mostly to elegance and simplicity. Growing up as the son of Libero Andreotti certainly influenced him in this direction. His own art work, for example painting tiles, was dear to him. It is worth a journey to his grave (Chiesa di San Francesco in Pisa) where his own work and vision of certain aspects of K3-surfaces can be seen in his tile paintings.

Thinking back about Aldo Andreotti and writing this has given me a very warm feeling. He was a truly beautiful mathematician who left a great legacy.

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