

Stories about Walter

Walter has many stories to tell, and many stories can be told about him. I feel reluctant to publish stories that are of such a personal nature. Knowing, however, the enjoyment I have in hearing stories about him, I tried to find a compromise and decided to write down just a few.

Stories and science

When Walter tells a story, he sometimes seems to leave the subject, only to return, later, with an unexpected twist. In science, he sometimes follows a similar pattern. One day he seemed to quite ignore something I told him, only to return the next day to the same subject, with a surprising and refreshing view.

How a proof should be

I found a proof and showed it to Walter. He said "one has to think more about it", so I checked the mathematics. Finding no error, I asked Walter to explain what he meant by his comment. He replied that he was not criticizing the mathematics but thought that one must strive to find the beauty behind the proof.

Walter judging himself

Walter's publications are known for quality, not quantity. Indeed, some of Walter's work remains unpublished, because he finds that more work is needed to polish it. People around him knew this, but I, as a newcomer, was surprised to find that one of the subjects I was working on was in fact close to something Walter did 20 years ago and never published.

A technical question

After much work, both numerical and analytical, a colleague and I found out that the Hohenberg-Kohn theorem is right, but that the one-to-one correspondence between the potential and the density is not "numerically true": a small change in the density can produce significant changes in the potential. I gave Walter an example for it: perturbing the potential by a rapidly oscillating potential. He answered: "This is known for a long time: a particle does not see the rapid oscillations in the potential."

Walter about motivation in science

At a conference, I asked Walter if he understood the point of an investigation that had just been presented. He seemed to share my lack of interest, saying that the speaker

can do with his life what he wants.

Walter's disagreement

Walter is known for being a careful listener. I rarely have seen him attending a talk without asking a pertinent question afterwards. There was, however, one exception. The speaker was only presenting slides full of routine numerical results. Once Walter realized this, he just closed his eyes.

Is Walter still productive?

I met someone who knew Walter only by name. He told me that Walter must be unproductive by now. This was so surprising to me that I at first did not understand what he meant. It was easy to convince my interlocutor that he was wrong, by just quoting a few of Walter's recent papers. I hope that Walter will continue presenting us his ideas and surprising us for many more years.

Andreas Savin

*Laboratoire de Chimie Théorique
CNRS et Université Paris VI
France*