## Marcos Arroyo Alvarez de Toledo on Soil Crushing

## a report by Marlene Wachberger

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In his presentation on Wednesday, the 14<sup>th</sup> of November 2018, Marcos Arroyo Alvarez de Toledo, professor and researcher at the Universitat Politcnica de Catalunya, gives a brief insight about the topic of soil crushing.

Starting with a rather bored sounding "Good morning everyone" one could tell that he had already lost at least five per cent of the audience's attention. His not exactly high, but rather shrill voice did not evoke any further desire to keep listening, at least not in those members of the audience, that were inexperienced with the subject.

At the beginning of his presentation Mister Arroyo gives a short outline of the three main points he is going to cover during his lecture: introduction and motivation of the subject, crushing model and finally applications. His slides are well structured with an even balance of text and pictures or graphs, never displaying too much on one slide for the audience to get lost. The use of a laser pointer allows Mister Arroyo to stay put in one place for most of the time, making a truly calm and experienced expression. Perhaps slightly too casual appears the way he keeps one hand in his pocket while talking, now and again even while walking a few steps toward the projection screen to point something out. In addition, leaving the top button of his shirt open, does not leave a perfectly professional impression.

Mister Arroyo's words do not sound learnt by heart, but experienced. He emphasizes more important words, slows down when stating an essential point and pauses shortly between crucial sentences. By looking directly into the audience he invites everyone to listen to his words while speaking in a loud and clear voice without ever swallowing a word. To further evoke the audience's attention he asks questions, such as: "Why use this and not that?" and immediately answers them himself. From time to time he also refers back to statements from the beginning of his presentation, providing a chance for the audience to recognize previous information. His use of the word "we" instead of "I", for example in sentences like: "We do this and we calculate that...", could only be meant to refer to his team of researchers, but also seems to include the audience in the process of finding a solution for the given problems.

Even though a great part of the audience probably did not pay a lot of attention, since it is a very difficult subject that is hard to understand for people that do not usually work in this field, it can be said that Marcos Arroyo gave a clear, interesting and very well prepared presentation on his field of research, perhaps even evoking one or two people's interest in further studies of the subject.