## Critical Review: Recent Developments on Reduce Order Models or Flow Mechanics

This is a critical review on the seminar "Recent Developments on Reduce Order Models or Flow Mechanics", presented by Joan Baiges. It will focus on the presentation's technical aspects, such as the efficiency of the speech and the visual aids used in transmitting the information, the speaker's body language while presenting and the overall effectiveness of the message delivered. The analysis is based on the Communications Skills course material, but are strongly biased by personal experiences, both in watching and giving presentations.

The presentation's topic was the application of reduced order methods in fluid mechanics. This is a highly complex topic, which requires a strong mathematical basis to be explained and understood. The presentation relied mainly on the use of slides to explain the mathematical concepts of the problem and to show examples of the work done. The theory and its applications were mixed during the presentation, with the speaker verbally explaining key concepts and supporting the theory with examples and several pictures, making it easier to follow the topic.

Although the slides were clean, with the chosen font colors and sizes adequate, they were filled with too much text. This has no purpose for the audience during a presentation, since there will not be enough time to read everything. Clearly the text was meant to help the speaker remember key points, but they were in excess and end up serving as crutches, with concepts being read instead of being properly explained to the audience. Additionally, there were often many equations being squeezed into single slides, that again did not help the people watching the presentation, as there was no time to understand them. It is worth mention that presenting heavy mathematical based problems for a group coming from different backgrounds is a really challenging task and the presenter performance was fair regarding the explanation of the theory.

The applications for the concepts explained were presented in the form of pictures and plots. During the presentation, several examples were shown along with the theory, with the more challenging parts being explained with personalized pictures. Some of the results plots had line colours that could not be clearly seen, such as bright green, making it difficult to discern the results. Also, there were several times where pictures that were meant for comparison between exact and computed solutions were put side by side, but were visually identical. Despite serving the purpose of showing that the solutions obtained are in agreement with the theory, in excess they lose their meaning and could be substituted by pictures of the difference between the results, what would express the same message with fewer pictures. The overall quality of the visual aids was good, with the presenter exploring many different options to try to transmit the information.

The speaker tone was consistent during the presentation, with him talking loudly and calmly, making it easier to understand what was being said. Often during the presentation he was facing the slides instead of the public, and although sometimes facing the slides can express the need to focus on something specific in them, doing this often transmits a lack of connection between the speaker and the audience. Despite that, we communicating directly with the public, the speaker had an open body language, using his hands to support key points, but felt a bit short in using the physical space he had, often standing in the same place.

In summary, the seminar was good, with many visual aids being use to try to make a complex topic simpler. Still, the people that took the most advantage of it were the ones with previous experience with the topic, since the theory was crammed into many lines of text and long equations, making it hard to follow.