

Summary of Dinner Talk by Richard Van Hooff

Van Hooff spoke on the theme of the explosion in the quantity of scientific data. He asked how is the user of these data, unable to digest all of it, to decide which data to pay attention to. The point was illustrated by examples of data collected in the design process of the Hutton Tension Leg Platform (TLP). These examples included data from competing theories, model tests at different facilities and from the completed TLP. The overall question of the talk was left unanswered, but the talk closed on the observation that it is, and will be, workshops such as this one which provide the best hope for beneficial transfer of data from the scientific community to the industrial community. Furthermore, closer ties between academic and industrial spheres are recommended.

The following questions arose during the talk in reference to specific examples presented:

Newman: Is the wind spectrum really responsible for the highly-tuned resonant surge motions?

Van Hooff: Yes. The exponential shape of the wind spectrum is currently used at Conoco. Due to the exponential shape of the wind spectrum, the low-frequency portion tends to generate the slow resonant modes of the structure, whereas the high frequency portion excites the elastic modes.

Troesch: What is the damping factor at resonance used to produce this bi-modal response spectrum?

Van Hooff: The damping ratio was estimated at .01. It was very low.

Tuck: The cockroach diagrams are a good point; they exhibit the fact that there is more information than we can handle.