

Proposal to build a Large Wind Tunnel for Turbulence Research in Sweden

Dear Colleague,

This is a request for a letter of support for building a large facility for basic turbulence research. As I am sure you are aware, we have been contemplating the construction of a very large wind tunnel, the "Nordic Wind Tunnel". This tunnel will be specifically designed to be able to resolve a number of the outstanding questions in turbulence. The design goal is to be able to resolve the dissipative and near wall scales using existing probes, yet at the same time achieve the highest Reynolds numbers of interest. The details of this proposed facility are briefly described in the attached note, which recently appeared in the ERCOFTAC Bulletin. More details and updates are available on the web at <http://www.tfd.chalmers.se/trl/windtunnel>. We particularly call your attention to the presentation by Martin Wosnik *et al.* at the 2001 APS/DFD meeting in San Diego.

We realize that a project of this magnitude should involve the entire global turbulence research community, and we are taking steps to insure that is possible. But now the first tangible step toward construction is about to be taken. We are preparing for submission toward the end of April a proposal to construct this facility. It will be submitted to a Swedish Foundation by the President of Chalmers University. We would very much appreciate a letter of support from you that we could append to this proposal (on letter head if possible, can be attached to e-mail as *.pdf or *.doc file). Please add (or append) any suggestions regarding specific research you feel to be important that might be possible in such a facility, as well as your own personal interest in performing such research should funds be available.

Like in all "big science" there is a substantial risk, which few will take. We are fortunate to have a university president who is willing to personally support the proposal, as well as to designate a building to house the facility should it be built. Your support is vital to assure those with the construction money of the scientific merits of this venture. Thank you for the effort.

Yours truly,



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