November 9, 2011

Consorzio RFX
Associazione EURATOM-Enea sulla Fusione
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To: Mr. Hans Jahreiss, Fusion for Energy, European Domestic Agency

Job Title: Plasma Physics, Scientific Coordinator

Ref: Senior Scientific Officer POP-009

To Whom It May Concern,

my name is Nicola Vianello, I am a 36 years old Phd Physic Scientist, currently working at the RFX-mod experiment. I would like to apply for the aforementioned job position

I've been involved in Fusion plasma Science since my M.Sci. Thesis in Physics 1999. My primary research interests is transport phenomena in fusion oriented plasmas with strong emphasis on non-linear dynamics. I have addressed the problem both experimentally, through the collection, analysis, interpretation and modeling of experimental data, and numerically, through the use of massive parallel fluid codes.

I've a strong attitude in data analysis and evaluation with a particular emphasis on the comparison with theories and codes which provide the suitable framework for the correct interpretation of real data. I've been involved in interpretation of a variety of phenomena, ranging from electrostatic turbulence particle transport, sheared flow turbulence generation, turbulent non-linearly generated structures, interplay between 3D magnetic perturbation and plasma transport phenomena. Each of these topics has required the establishment of a solid theoretical background, and the adaptation of theories, generally proposed for different configuration or different plasmas (as for example in the studie of Drift-Kinetic Alfvén turbulence in RFPs, previously considered in tokamaks or in the magnetosphere). I strongly believe that this attitude, which combines experimental expertise with clear and solid theoretical background provide an additional important element for the establishment of a comprehensive integrated modeling capability of tokamak scenarios.

I've been actively involved in the coordinations of experimental campaigns in RFX-mod experiment, as task force leader during 2009 and 2010, taking part to the decision processes concerning the experimental program of the machine deciding priorities and objectives. This effort was tightly linked with the theory department of my institute, in order to design and suggesting adeguate experiment which could provide unanswered theoretical issue. In 2011 I've been also coordinator of the EFDA working group 3D field effects in edge and SOL and diagnostic development under EFDA Transport Topical Group umbrella. As a duties I have to coordinate the activities of different european laboratories, stimulating discussion and defining common objectives. I believe these experience provide me a good management and coordination capabilities also in an international environment.

My international experience is very good, with vital and active collaborations with different european and international laboratories.

I think that during my research carrier I have proved good autonomy accompanied by good capability to work in small and large groups.

All these qualities and competences fits very well with the requirements for the position. I would be eager to have the possibility to work in such an exciting environment as ITER. Thank you for your consideration. I look forward to hearing from you.

Sincerely,

Nicola Vianello

Encl: Curriculum Vitae, Reference Letter from Prof. Francesco Gnesotto