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To Whom It May Concern,

my name is Nicola Vianello, I am a 40 years old Phd Physic Scientist, currently working at the Swiss Plasma Center on the TCV experiment. I would like to apply for the faculty position in Plasma Physics at tenured assistant professor level.

I've been involved in Fusion plasma Science since my M.Sci. Thesis in Physics in 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.

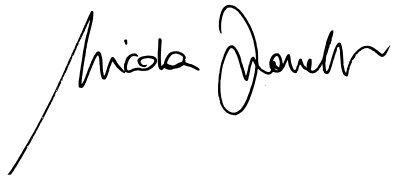
I've a strong attitude in data analysis and evaluation with a particular emphasis on the comparison with theories and codes which provide the suitable framework for the correct interpretation of real data. I've been involved in the interpretation of a variety of phenomena, ranging from electrostatic 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 development of a solid theoretical background, and the adaptation of theories to the studied framework. 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 comprehension of tokamak and more generally plasma physics. My future research plans are aimed to extend the studies of transport and fluctuations also to superthermal particles focusing in particular to the interplay between turbulence and energetic particles. To address this topic an aggressive experimental program has to be set up with the installation of suitable diagnostic for fast-ion studies, but need to be complemented by modeling and interpretative approach to disentangle both the role of turbulence on fast particle population and the action of energetic particle in generating and modulating turbulent fluctuations.

I've been actively involved in the coordinations of experimental activities in various international experiment (RFX-mod, JET, TCV and Asdex-Upgrade), both as task force leader and as scientific coordinator. I believe these experiences provide me a good management and coordination capabilities also in an international environment. My international experience is indeed very good, with vital and active collaborations with different european and international laboratories.

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

All these qualities and competences fits well with the requirements for the position.

Sincerely,



Nicola Vianello