

Nicola Vianello

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EUROfusion Program Management Unit

EUROfusion

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Dear Sir or Madam,

my name is Nicola Vianello, I am a 44 years old Phd Physic Scientist, currently working at the Consorzio RFX, Padova. I would like to apply for the ITPA position in the Pedestal and Edge physics group.

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.

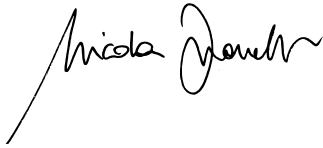
I've a strong attitude in data analysis and evaluation with a particular emphasis on the comparison with theories and codes which provide the suitable framework for the correct interpretation of real data. I've been involved in the interpretation of a variety of phenomena, ranging from electrostatic turbulence particle transport, sheared flow turbulence generation, turbulent non-linearly generated structures, interplay between 3D magnetic perturbation and plasma transport phenomena, relationship between divertor conditions and upstream SOL and pedestal properties. 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. To my understanding physical properties of the pedestal and edge confined region are tightly linked to the SOL and boundary condition: moving from this assumption I'm trying to focus my experimental activities to bridge the gap between these two regions and I believe that this expertise may be extremely relevant for the Pedestal and Edge physics group. I've been actively involved in the coordinations of experimental activities in various european experiments (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 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.

Yours faithfully,

A handwritten signature in black ink, appearing to read 'Nicola Vianello', with a long, sweeping horizontal line extending to the left.

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