

ELECTRICAL, ELECTRONICS AND COMMUNICATIONS ENGINEERING

PNRR - High Order Strategies in Computational Electromagnetics For Smart Surfaces Applications

Funded By	MINISTERO DELL'UNIVERSITA' E DELLA RICERCA [P.iva/CF:97429780584] Politecnico di TORINO [P.iva/CF:00518460019]
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Context of the research activity	<p>This thesis will focus on developing new computational strategies for handling advanced smart electromagnetic surfaces within an high order framework. The investigations will focus both on the stability issues of computational technologies and in proper handling of singular behavior of the physical solutions.</p> <p>PNRR M4C2, Investimento 1.3 - Avviso n. 341 del 15/03/2022 - PE0000001 REsearch and innovation on future Telecommunications systems and networks, to make Italy more smart (RESTART) - CUP E13C22001870001</p>
Objectives	<p>This thesis work is supported by the PNRR action RESTART. This thesis topic will offer an unique opportunity of gaining expertise both in numerical and computational science and in high performance computing as the partnership proposing this thesis topic has a exclusively dedicated full HPC cluster. Among the objectives of the research that will be in part tapered to the candidate's profile there will be: the development of new numerical strategies for handling complex electromagnetic problems, the investigation of associated fast strategies, the development of ad-hoc HPC scenarios to handle the computational complexities of the physical problems we will consider.</p>
Skills and competencies for the development of the activity	<p>The only prerequisite are good programming skills. Backgrounds in computational science, electromagnetic physics, and/or applied math are not mandatory but represent a plus.</p>

