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COMPUTATIONAL AND ANALYTICAL ADVANCES IN NONLOCAL MODELING

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MINISYMPOSIUM

Recent developments in the analysis of nonlocal systems of equations showcase the importance of studying solutions that may exhibit discontinuous, singular, or irregular behavior. Within the scope of this session we will focus on numerical methods and algorithms for Partial-Integro Differential Equations (PIDEs) with applications in computational engineering, as well as theoretical and modeling aspects that contribute to the understanding of these systems. The participants in this session will present new contributions to these areas, including results in the well-posedness and regularity theory, stavility results, decompositions properties, connections with classical theories. The participants will also discuss new challenges and opportunities in the nonlocal framework, as well as future directions of research. The organizers will invite a diverse group of speakers with participants from underrepresented groups, females, and from early-career to senior members of the community. The aim of this minisymposia is to leverage the discussion between the numerical and theoretical community.