

Institut Ruđer Bošković  
ZAVOD ZA TEORIJSKU FIZIKU  
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SEMINAR ZAVODA ZA TEORIJSKU FIZIKU  
(Zajednički seminari Zavoda za teorijsku fiziku,  
Zavoda za eksperimentalnu fiziku i Zavoda za teorijsku fiziku PMF-a)

## Theory and phenomenology of exclusive hadronic processes

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### **Abstract:**

Hard exclusive processes allow to resolve the internal structure of hadrons and even nuclei from a new perspective. The non-perturbative information about the partonic content, encoded in generalized parton distributions and distribution amplitudes, is complementary to those obtained from inclusive measurements. In this talk the theory for these processes is reviewed and phenomenological applications are discussed. In particular, a new representation of generalized parton distributions and hadronic amplitudes as Mellin–Barnes integral will be presented. This representation allows for a flexible parameterization of generalized parton distributions, it can be used for a fast and stable numerical evaluation of observables, and is the key to improve the theoretical framework beyond the next-to-leading order accuracy.

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