

Fizički odsjek, PMF, Sveučilište u Zagrebu  
Bijenička cesta 32

---

## Seminar Fizičkog odsjeka

---

Time (c.t.) link: <https://zoom.us/j/8205066086>  
Friday, 21<sup>st</sup> May 2021, 9h id: 820 506 6086

### Constraints on the $g \rightarrow \pi^0$ fragmentation function from RHIC data

**Abhiram Kaushik**

Department of Physics, Faculty of Science  
University of Zagreb

In the first part, I talk about a reweighting of the NNFF1.0 fragmentation functions using  $\pi^0$  production data from colliders. Historically, fits of fragmentation functions have only included single-inclusive annihilation ( $e^+e^- \rightarrow h + X$ ) data. The (relatively speaking) recent DSS and AKK fits do include collider data. However, with all the FFs there are issues in the description of hadroproduction data at the Tevatron and LHC. This is also an issue with the reweighted FFs I discuss. However, this leads to the second part of the talk where I discuss how the systematic inclusion of theoretical uncertainties - that is, uncertainties in the theory calculation such as due to truncation of perturbation theory at fixed order - could lead to a reduction of tension between data and theory.

Voditelji seminara FO  
Damjan Pelc i Sanjin Benić