



Contribution ID: 324

Type: **Poster**

## Chiral Symmetry Restoration, Thermal Resonances and the $U(1)_A$ symmetry

*Tuesday 7 September 2021 11:19 (1 minute)*

We review recent work on Ward Identities (WI) and Effective Theories within the context of the QCD transition at finite temperature. On the one hand, WI allow to obtain generic results on the interplay between chiral and  $U(1)_A$  restoration, key to understand the nature of the transition, as well as scaling laws verified by lattice screening masses. On the other hand, thermal resonances  $f_0(500)$  and  $K_0^*(700)$  generated within Unitarized Chiral Perturbation Theory (ChPT) scattering at finite temperature allow to describe scalar susceptibilities around chiral and  $O(4) \times U(1)_A$  restoration, in good agreement with lattice results.

**Primary author:** Prof. GÓMEZ NICOLA, Angel (Universidad Complutense de Madrid)

**Co-authors:** Dr RUIZ DE ELVIRA, Jacobo (ITP, Bern U.); Ms VIOQUE-RODRÍGUEZ, Andrea (Universidad Complutense Madrid)

**Presenter:** Prof. GÓMEZ NICOLA, Angel (Universidad Complutense de Madrid)

**Session Classification:** Poster Session I

**Track Classification:** Hot and dense matter physics - QGP and heavy ion collisions