



# HADRONs

## 2025 Porto Alegre

• • • XVI International Workshop on Hadron Physics

**10–14 Mar** | **Centro Cultural da UFRGS**

*Invited speakers*

**Kenji Fukushima**  
The University of Tokyo

**Chun Shen**  
Wayne State University

**Lisheng Geng**  
Beihang University

**Fernanda Steffens**  
University of Bonn

**National Committee**

Kanchan Khemchandani (UNIFESP)  
Jun Takahashi (UNICAMP)  
Leticia Palhares (UERJ)  
Luciano Abreu (UFBA)  
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Victor Gonçalves (UFPeI) - Chair  
Gustavo Gil da Silveira (UFRGS)  
Magno Machado (UFRGS)  
Ricardo Sonogo Farias (UFSM)

**Registrations open from**  
**10 Aug 2024 to 14 Feb 2025**  
<https://indico.cern.ch/e/hadrons2025>





**Começar (Iniciar)** 10 de mar. de 2025 09:00  
**Fim** 14 de mar. de 2025 19:00  
America/Sao\_Paulo



Centro Cultural - UFRGS  
Jacarandá Auditorium  
Rua Eng. Luiz Englert, 333 - Porto Alegre-RS  
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[Victor Goncalves](#)



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ID da Contribuição: 47

Tipos: Oral communications

## Ensemble of topological defects and the confining flux tube

*quinta-feira, 13 de março de 2025 14:45 (15 minutos)*

Understanding how the confining flux tube is formed in  $SU(N)$  Yang-Mills theory is an important step towards understanding color confinement in QCD. It is known that center vortices play an important role in this regard, but it remains a mystery how to take them into account in a non-perturbative manner. One way is by performing ensembles of percolating vortices using a phenomenological model. In this talk, a few of these ensembles will be explored and the importance of including attached monopoles and non-Abelian degrees of freedom will be highlighted. On top of that, it will be shown how this modeling can lead to an effective field representation and how the associated classical solutions, in the form of topological solitons, can accommodate a myriad of lattice results such as transversal profiles, asymptotic scaling, and N-ality, etc.

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**Apresentador:** MOREIRA SIMÕES, Gustavo (IFSC-USP)

**Classificação da Sessão:** Oral communications