

”The Trans-Carpathian Seminar on Geometry & Physics”

(See also the [Geometry & Physics @ DFT](#) seminar homepage)

Date: Wednesday, Oct. 9, 2024, 15:15 Bucharest time

Location: online via Zoom

Speaker: **Prof. Thomas Strobl** (Université Claude Bernard Lyon 1)

Title: **From Gauge Theories to the octonionic Lie groupoid**

Abstract: In the first half, we review how one can turn the standard sigma model into a gauge theory and under what conditions. This leads us to the notion of singular Riemannian foliations (SRFs). We then show how the equivalence of gauge theories leads to Morita equivalence of SRFs. In the second half, we will study the octonionic singular foliation on R^{16} . In particular, we provide a Lie groupoid generating this foliation and show that it has the minimal possible dimension.