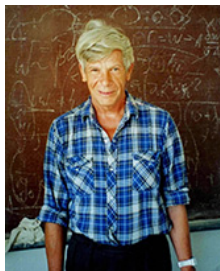


VII International Conference “Models in Quantum Field Theory”  
(MQFT-2022)



Contribution ID: 139

Type: **not specified**

## Non-abelian Fermionic T-duality in Supergavity

*Tuesday, 11 October 2022 14:30 (25 minutes)*

Field transformation rules of the standard fermionic T-duality require fermionic isometries to anticommute, which leads to complexification of the Killing spinors and results in complex valued dual backgrounds. We generalize the field transformations to the setting with non-anticommuting fermionic isometries and show that the resulting backgrounds are solutions of double field theory. Explicit examples of non-abelian fermionic T-dualities that produce real backgrounds are given. Some of our examples can be bosonic T-dualized into usual supergravity solutions, while the others are genuinely non-geometric. We establish interesting connection between ordinary and generalized supergravities through the consecutive non-abelian fermionic and bosonic T-dualities.

**Presenter:** ASTRAKHANTSEV, Lev

**Session Classification:** Section D

**Track Classification:** Section D: Gravitation and cosmology