

Graduate Mathematics Seminar

Clifford Algebras and Their Representations

Ricardo Suarez

University of Turin

Turin, Italy

$M_0(\mathbb{F})$	$M_{16}(\mathbb{C})$	$M_{16}(\mathbb{H})$	$M_{16}(\mathbb{H}) \oplus M_{16}(\mathbb{H})$	$M_{32}(\mathbb{H})$	$M_{64}(\mathbb{C})$	$M_{32}(\mathbb{F})$	$M_{32}(\mathbb{F}) \oplus M_{32}(\mathbb{F})$	$M_{64}(\mathbb{H})$
$M_8(\mathbb{C})$	$M_8(\mathbb{H})$	$M_8(\mathbb{H}) \oplus M_8(\mathbb{H})$	$M_{16}(\mathbb{H})$	$M_{32}(\mathbb{C})$	$M_{64}(\mathbb{R})$	$M_{32}(\mathbb{H}) \oplus M_{32}(\mathbb{H})$	$M_{64}(\mathbb{R})$	$M_{128}(\mathbb{C})$
$M_4(\mathbb{H})$	$M_4(\mathbb{H}) \oplus M_4(\mathbb{H})$	$M_8(\mathbb{H})$	$M_{16}(\mathbb{C})$	$M_{32}(\mathbb{F})$	$M_{64}(\mathbb{R}) \oplus M_{64}(\mathbb{R})$	$M_{32}(\mathbb{H})$	$M_{64}(\mathbb{C})$	$M_{64}(\mathbb{H})$
$M_2(\mathbb{H}) \oplus M_2(\mathbb{H})$	$M_4(\mathbb{H})$	$M_8(\mathbb{C})$	$M_{16}(\mathbb{R})$	$M_{32}(\mathbb{F}) \oplus M_{32}(\mathbb{F})$	$M_{64}(\mathbb{R})$	$M_{32}(\mathbb{C})$	$M_{32}(\mathbb{H})$	$M_{32}(\mathbb{H}) \oplus M_{32}(\mathbb{H})$
$M_2(\mathbb{H})$	$M_4(\mathbb{C})$	$M_8(\mathbb{H})$	$M_{16}(\mathbb{R}) \oplus M_{16}(\mathbb{R})$	$M_{32}(\mathbb{H})$	$M_{64}(\mathbb{C})$	$M_{32}(\mathbb{H})$	$M_{32}(\mathbb{H}) \oplus M_{32}(\mathbb{H})$	$M_{32}(\mathbb{H})$
$M_2(\mathbb{C})$	$M_4(\mathbb{H})$	$M_8(\mathbb{F}) \oplus M_8(\mathbb{F})$	$M_{16}(\mathbb{H})$	$M_{32}(\mathbb{C})$	$M_{64}(\mathbb{H})$	$M_{32}(\mathbb{H})$	$M_{32}(\mathbb{H}) \oplus M_{32}(\mathbb{H})$	$M_{32}(\mathbb{C})$
$M_2(\mathbb{R})$	$M_4(\mathbb{F}) \oplus M_4(\mathbb{F})$	$M_8(\mathbb{F})$	$M_{16}(\mathbb{C})$	$M_{32}(\mathbb{H})$	$M_{64}(\mathbb{H}) \oplus M_{64}(\mathbb{H})$	$M_{32}(\mathbb{H})$	$M_{64}(\mathbb{C})$	$M_{64}(\mathbb{R})$
$\mathbb{R} \oplus \mathbb{R}$	$M_2(\mathbb{R})$	$M_2(\mathbb{C})$	$M_2(\mathbb{H})$	$M_2(\mathbb{H}) \oplus M_2(\mathbb{H})$	$M_4(\mathbb{H})$	$M_4(\mathbb{C})$	$M_4(\mathbb{F})$	$M_4(\mathbb{H}) \oplus M_4(\mathbb{H})$
\mathbb{R}	\mathbb{C}	\mathbb{H}	$\mathbb{H} \oplus \mathbb{H}$	$M_2(\mathbb{H})$	$M_4(\mathbb{C})$	$M_2(\mathbb{F})$	$M_2(\mathbb{H}) \oplus M_2(\mathbb{H})$	$M_4(\mathbb{H})$

Abstract: The focus will be to view the spinor bundle and their representations through the larger frame work of a Clifford bundle. The representation space for spin group is know as the space go Dirac spinors , we will also introduce Clifford multiplication on the spinors bundle and if time permits the construction of the spinorial Levi Civita connection .

When: Monday, October 12, 2020, 6:00 – 7:00 pm

Where: Online, via Zoom