Mathematical Notation

V	linear space
$\mathbb{F}$	field
$\mathbb{D}$	division ring (typically $\mathbb{R}$, $\mathbb{C}$, $\mathbb{H}$)
$\mathbb{H}$	division ring of quaternions
$\mathbb{O}$	division algebra of octonions
$\mathrm{Mat}(d,\mathbb{F})$	$d \times d$ matrix algebra over $\mathbb{F}$
$\mathrm{Mat}(d,\mathbb{D})$	matrix algebra over $\mathrm{Cen}(\mathbb{D})$ with entries in $\mathbb{D}$
${}^2\mathbb{F}$	double ring $\mathbb{F} \times \mathbb{F}$ of the field $\mathbb{F}$
${}^2\mathrm{Mat}(d,\mathbb{F})$	direct sum $\mathrm{Mat}(d,\mathbb{F}) \oplus \mathrm{Mat}(d,\mathbb{F}) \simeq \mathrm{Mat}(d,{}^2\mathbb{F})$
A	an algebra
$\mathrm{Cen}(A)$	the center of an algebra A
$\mathbb{A}$	$\mathbb{R}$, $\mathbb{C}$, $\mathbb{H}$, ${}^2\mathbb{R}$, or ${}^2\mathbb{H}$
$\mathbb{R}^n$	n-dimensional real linear space
$\mathbb{R}^n = \mathbb{R}^{n,0}$	n-dimensional Euclidean space
$\mathbb{C}^n$	n-dimensional complex linear space
$\mathbb{H}^n$	n-dimensional module over $\mathbb{H}$
$\mathbb{R}^{p,q}$	real quadratic space (p for positive and q for negative)
$\mathcal{C}\ell_{p,q}$	Clifford algebra of $\mathbb{R}^{p,q}$
Q	quadratic form
$\mathcal{C}\ell(Q)$	Clifford algebra of the quadratic form Q; $\mathbf{x}^2 = Q(\mathbf{x})$
$\mathcal{C}\ell_3 \simeq \mathrm{Mat}(2,\mathbb{C})$	Clifford algebra of the Euclidean space $\mathbb{R}^3$
$\mathcal{C}\ell_n = \mathcal{C}\ell_{n,0}$	Clifford algebra of the Euclidean space $\mathbb{R}^n = \mathbb{R}^{n,0}$
$\mathcal{C}\ell_{1,3} \simeq \mathrm{Mat}(2,\mathbb{H})$	Clifford algebra of the Minkowski space $\mathbb{R}^{1,3}$
$\mathcal{C}\ell_{3,1} \simeq \mathrm{Mat}(4,\mathbb{R})$	Clifford algebra of the Minkowski space $\mathbb{R}^{3,1}$
$\hat{u}$	grade involute of $u \in \mathcal{C}\ell(Q) = \mathcal{C}\ell^+(Q) \oplus \mathcal{C}\ell^-(Q)$
$\tilde{u}$	reverse of $u \in \mathcal{C}\ell(Q)$; $\tilde{\mathbf{x}} = \mathbf{x}$ for $\mathbf{x} \in V$
$\bar{u}$	Clifford-conjugate of $u \in \mathcal{C}\ell(Q)$; $\bar{\mathbf{x}} = -\mathbf{x}$ for $\mathbf{x} \in V$
u^*	complex conjugate of u (in chapter 2 also $\bar{u}$)
f	primitive idempotent of $\mathcal{C}\ell_{p,q}$
$S = \mathcal{C}\ell_{p,q} f$	spinor space (minimal left ideal of $\mathcal{C}\ell_{p,q}$)
$\check{S}$, $\check{U}$	left ideal $S \oplus \hat{S}$ or companion of $U \in SO(8)$
$\mathbb{Z}_n$	$\{0, 1, \ldots, n-1\}$ or $\{1, e^{i2\pi/n}, \ldots, e^{i2\pi(n-1)/n}\}$