Ordinal	Arithmetic theories	Set theories	Inductive defs.	Type theories	Other
	Q	KP-			
$\omega^2$	RFA, I $\Delta_0$				
$\omega^3$	$ ext{RCA}_0^*,  ext{WKL}_0^*,  ext{I}\Delta_0 +  ext{exp}$				
$\omega^n$	$\mathrm{I}\Delta_0 + \mathcal{E}_n$ is total				
$\omega^{\omega}$	$(RCA)_0$ , $(WKL)_0$ , $PRA$			CPRC	
$\varepsilon_0$	$(ACA)_0, (\Delta_1^1 - CA)_0, PA$	KP−∞			$\mathrm{EM}_0$
$\varepsilon_1$	$(ACA)_0 + (KPHT)$				
$arepsilon_{\omega}$	$(ACA)_0 + (iRT)$				
$arepsilon_{arepsilon_0}$	(ACA)				
$\psi_{\Omega_1}(\Omega) = \zeta_0$	$(\mathrm{ACA})_0 + (\forall X \exists Y (\mathrm{TJ}(\omega, X, Y)))$				
$\psi_{\Omega_1}(\Omega^\omega)$	$(\Delta_1^1\text{-CR})$		${ m ID}_1^\#$		$\mathrm{EM_0}{+}\mathrm{JR}$
$\psi_{\Omega_1}(\Omega^{\varepsilon_0})$	$(\Delta_1^1\text{-CA}), (\Sigma_1^1\text{-AC})$		$\widehat{ ext{ID}}_1$	$\mathrm{ML}_1$	$\mathrm{EM_0}{+}\mathrm{J}$
$\psi_{\Omega_1}(\Omega^{\Omega}) = \Gamma_0$	$( ext{ATR})_0,(\Delta_1^1 ext{-CA}) ext{+}( ext{BR})$	KPi−	$\widehat{\mathrm{ID}}_{<\omega}$	$\mathrm{ML}_{<\omega},\mathrm{MLU}$	U(PA)
$\psi_{\Omega_1}(\Omega^\Omega \varepsilon_0)$	(ATR)		$\widehat{\mathrm{ID}}_{\omega}$		
$\psi_{\Omega_1}(\Omega^{\Omega+\omega})$	$(ATR)_0 + (\Sigma_1^1 \text{-DC})$		$\widehat{\mathrm{ID}}_{<\omega^\omega}$		
$\psi_{\Omega_1}(\Omega^{\Omega+arepsilon_0})$	$(ATR)+(\Sigma_1^1\text{-DC})$		$\widehat{\mathrm{ID}}_{$		
$\psi_{\Omega_1}(\Omega^{\Omega+\Gamma_0})$	, , , , , , ,		$\widehat{\mathrm{ID}}_{<\Gamma_0}$	MLS	
$\psi_{\Omega_1}(\Omega^{\Omega 2})$		KPh⁻	$\operatorname{Aut}(\widehat{\operatorname{ID}})$		
$\psi_{\Omega_1}(\Omega^{\Omega\omega})$		KPM <sup>-</sup>	· /		
$\psi_{\Omega_1}((^{(n+1)}\Omega)^{\Omega^{\omega}})$	$(\mathrm{ACA})_0 \!+\! (\Pi^1_{n+2} ext{-BI})$	$\mathrm{KP}^- + \Pi^{\mathrm{set}}_{n+2}$ -Foundation			
$\psi_{\Omega_1}((^{(n+1)}\Omega)^{\Omega^{\varepsilon_0}})$	$(ACA) + (\Pi_{n+2}^1 - BI)$	$KP^- + IND + \Pi_{n+2}^{\text{set}}$ -Foundation			
$\psi_{\Omega_1}(\varepsilon_{\Omega+1})$	$(\mathrm{ACA}) + (\mathrm{BI}),  (\Pi_1^1\text{-}\mathrm{CA})^-$	$^{n+2}$ KP, KP( $\mathcal{P}$ ), KP+ $\Pi_2^{\text{set}}$ -Reflection, CZF	${ m ID}_1,{ m ID}_1^2$	$\mathrm{ML_{1}V}$	
$\psi_{\Omega_1}(\Gamma_{\Omega+1})$	( - / · ( // ( 1 - /	, (, ), 2	17 1		$U(ID_1)$
$\psi_{\Omega_1}(arepsilon_{\Omega_2+1})$		$ ext{KP+}\Pi_1^{ ext{set}} ext{-Coll+} ext{V=} ext{L+}\exists \omega_1$	$\mathrm{ID}_2,\mathrm{ID}_2^2$		- ( 1)
$\psi_{\Omega_1}(\Omega_\omega)$	$(\Pi_1^1\text{-CA})_0, (\Delta_2^1\text{-CA})_0$	$KPl^r, KPi^r, KP\beta^r$	$ID_{<\omega}, (ID_{<\omega}^2)_0$		
$\psi_{\Omega_1}(\Omega_\omega \varepsilon_0)$	$(\Pi_1^1\text{-CA})$	W-KPl	$W-ID_{\omega}, ID_{<\omega}^2$		
$\psi_{\Omega_1}(\varepsilon_{\Omega_\omega+1})$	$(\Pi_1^1\text{-CA})+(\mathrm{BI})$	KPl	$ID_{\omega}, BID_{\omega}^2$		
$\psi_{\Omega_1}(\Omega_{\omega^\omega})$	$(\Delta_1^2\text{-CR}), (\Pi_1^1\text{-CA}_{<\omega^{\omega}})$	$ ext{KPl}^r_{\omega^\omega}$	$\mathrm{ID}_{<\omega}^{\omega}$		
$\psi_{\Omega_1}(\Omega_{\varepsilon_0})$	$(\Delta_2^1\text{-CA}), (\Pi_1^1\text{-CA}_{<\omega^1})$ $(\Delta_2^1\text{-CA}), (\Sigma_2^1\text{-AC}), (\Pi_1^1\text{-CA}_{<\varepsilon_0})$	$KPl_{\varepsilon o}^{r}$ , W-KPi, W-KP $\beta$	$ID_{<\varepsilon_0}, ID_{<\varepsilon_0}^2, ID_{<\varepsilon_0}^2$		
$\psi_{\Omega_1}(\Omega_{\delta})$	$(\square_2 \text{ CH}), (\square_2 \text{ He}), (\Pi_1 \text{ CH}_{<\varepsilon_0})$ $(\Pi_1^1\text{-CA}_{<\lambda}), (\Pi_1^1\text{-CA}_{<\lambda})+(\text{BI})$	$\operatorname{KPl}_{\nu}^{r}$	$\frac{\mathrm{ID}_{<\varepsilon_0},\mathrm{ID}_{<\varepsilon_0}^2,\mathrm{ID}_{<\varepsilon_0}^2}{\mathrm{ID}_{<\lambda},\mathrm{BID}_{<\lambda}^2,\mathrm{ID}_{<\lambda}^2+(\mathrm{BI})}$		
$\psi_{\Omega_1}(\Omega_{\lambda})$ $\psi_{\Omega_1}(\Omega_{\mu})$	$(\Pi_1^1\operatorname{CH}_{<\lambda}), (\Pi_1^1\operatorname{CH}_{<\lambda}) + (B1)$	$\mathrm{KPl}^r_\mu$	$\frac{ \mathrm{ID}_{<\lambda}^2, \mathrm{BID}_{<\lambda}^2, \mathrm{ID}_{<\lambda}^2 + (\mathrm{BI}) }{(\mathrm{ID}_{\mu}^2)_0}$		
$\psi_{\Omega_1}(\Omega_{\gamma})$	$(\Pi_1^1 - CA_{\gamma})$	$\mathrm{W-KPl}_{\gamma}$	$ID_{\gamma}^{2}$		
$\psi_{\Omega_1}(\varepsilon_{\Omega_{\nu}+1})$	$(\Pi_1 \cup \Pi_{\gamma})$	V-III Iy	$\operatorname{ID}_{\gamma}$		
$\psi_{\Omega_1}(\varepsilon_{\Omega_{\gamma}+1}) = \psi_{\Omega_1}(\varepsilon_{\Omega_{\gamma}+1})$	$(\Pi^1_1 ext{-}\mathrm{CA}_\gamma)+(\mathrm{BI})$	$\mathrm{KPl}_{\gamma}$	$\operatorname{ID}_{\gamma}, \operatorname{BID}_{\gamma}^2, \operatorname{ID}_{\gamma}^2 + (\operatorname{BI})$		
$\psi_{\Omega_1}(\varepsilon_{\Omega_{\Omega}+1})$ $\psi_{\Omega_1}(\varepsilon_{\Omega_{\Omega}+1})$	$(\Pi_1^{-}\cup\Pi_{\gamma})+(B1)$	$\mathrm{KPl}^{*} = \mathrm{KPl}^{r}_{\Omega}$	$\operatorname{ID}_{\gamma},\operatorname{BID}_{\gamma},\operatorname{ID}_{\gamma}^{-+}(\operatorname{BI})$ $\operatorname{ID}_{\prec^*},\operatorname{BID}^{2*},\operatorname{ID}^{2*}+(\operatorname{BI})$		
$\frac{\psi_{\Omega_1}(e\Omega_{\Omega}+1)}{\psi_{\Omega_1}(\psi_I(0))}$	$(\Pi_1^1\text{-TR})_0, (\text{Aut-}\Pi_1^1)_0$	$\frac{\mathrm{K}\Gamma = \mathrm{K}\Gamma_{\Omega}}{\mathrm{Aut\text{-}KPl}^r}$	$(\text{Aut-ID})_0$		
$\psi_{\Omega_1}(\psi_I(0))$ $\psi_{\Omega_1}(\psi_I(0)\varepsilon_0)$	$(\Pi_1^{-1}\Pi_1^{-1}), (Aut^{-1}\Pi_1^{-1})$ $(\Pi_1^{1}-TR), (Aut^{-1}\Pi_1^{1})$	W-Aut-KPl	Aut-ID		
$\frac{\psi_{\Omega_1}(\psi_I(0)\varepsilon_0)}{\psi_{\Omega_1}(\varepsilon_{\psi_I(0)+1})}$	$(\text{Aut-}\Pi_1^1) + (\text{BI})$	Aut-KPl	Aut-BID		
$\frac{\psi_{\Omega_1}(\varepsilon_{\psi_I(0)+1})}{\psi_{\Omega_1}(\varepsilon_{I+1})}$	$(\Delta_2^1\text{-CA})+(\text{BI}), (\Sigma_2^1\text{-AC})+(\text{BI})$	KPi, KP $\beta$ , CZF+REA	Mu <sup>2</sup> DID		$T_0$
$\frac{\psi_{\Omega_1}(\varepsilon_{I+1})}{\psi_{\Omega_1}(\Omega_{I+\omega})}$	$(\Delta_2^{-}\cup \Omega_j \cap (DI_j), (\Delta_2^{-}R\cup j + (DI_j))$	KP1, KP3, CZF+KEA KP1 <sup>+</sup>		$ML_1W$ , $ML_1WV$ , $KP_1W$ , $IARI$	10
$\psi_{\Omega_1}(\Omega_{L+1})$ $\psi_{\Omega_1}(\Omega_{L+1})$		KPh		$\mathrm{ML}_{1}\mathrm{W}, \mathrm{ML}_{1}\mathrm{W}\mathrm{V}, \mathrm{KF}_{1}\mathrm{W}, \mathrm{IARI}$ $\mathrm{ML}_{<\omega}\mathrm{W}$	
	$(\Delta_2^1 ext{-CA}) + ( ext{BI}) + ( ext{M})$	KPM, CZFM		1V1L1<ω VV	
$\psi_{\Omega_1}(\varepsilon_{M+1})$	$(\Delta_2$ - $\cup A_J$ + $(DI)$ + $(VI)$	KPM, CZFM KPM <sup>+</sup>		MLM	Agda
$\psi_{\Omega_1}(\Omega_{M+\omega})$	$(ACA)+(BI)+(\Pi_4^1-\beta$ -model Reflection)			MITIM	Agua
$\Psi^0_{\Omega_1}(arepsilon_{K+1})$	, , , , , , , , , , , , , , , , , , , ,	KP+ $\Pi_3^{\text{set}}$ -Reflection			
$\Psi^0_{\Omega_1}(\varepsilon_{\pi_n+1})$	$(ACA)+(BI)+(\Pi_{n+5}^1-\beta-\text{model Reflection})$	$ ext{KP} + \Pi_{n+4}^{ ext{set}} -  ext{Reflection}$			
$\Psi_{\mathbb{X}}(arepsilon_{\Xi+1})$	$(ACA)+(BI)+(\beta$ -model Reflection)	$\mathrm{KP+\Pi}^{\mathrm{set}}_{\omega} ext{-Reflection}$			
$\Psi_{\mathbb{H}}(arepsilon_{\Upsilon+1})$	(A1 CA) + (BI) + /	$KPi+\forall \alpha \exists \kappa \ L_{\kappa} \prec_{1} L_{\kappa+\alpha}$			
$\Psi_{\mathbb{K}}(arepsilon_{\mathcal{I}+1})$	$(\Delta_2^1\text{-CA})$ +(BI)+(parameter-free $\Pi_2^1$ -CA)	$KPi+\exists M(Trans(M) \land M \prec_1 V)$			

 $<sup>\</sup>nu$  is any nonzero ordinal,  $\gamma$  is a limit ordinal,  $\lambda$  is of the form  $\omega^{\gamma}$ ,  $\mu$  is additively indecomposable.

 $<sup>\</sup>Omega_{\nu} = \nu$ th uncountable cardinal, I = least weakly inaccessible cardinal.

M= least weakly Mahlo cardinal, K= least weakly compact cardinal.  $\pi_n=$  least  $\Pi^1_{n+2}$ -indescribable cardinal,  $\Xi=$  least  $\Pi^2_0$ -indescribable cardinal.  $\Upsilon=$  least cardinal such that:  $\forall \theta < \Upsilon \exists \kappa < \Upsilon(\kappa \text{ is } \theta\text{-indescribable}) \text{ and } \forall \theta < \Upsilon \forall \kappa < \Upsilon(\kappa \text{ is } \theta\text{-indescribable}) \Longrightarrow \theta < \kappa)$ 

 $<sup>\</sup>mathcal{I} = \text{least inaccessible cardinal such that there is a cardinal } \xi < \mathcal{I} \text{ that is } \rho\text{-reducible for all } \xi \leq \rho < \mathcal{I}.$ 

The existence of all of the above cardinals follows from the existence of a subtle cardinal.

$\mathrm{S}_0 = (\mathrm{Ext}) + (\mathrm{Null}) + (\mathrm{Pair}) + (\mathrm{Union}) + (\mathrm{Diff})$	
$S_1 = S_0 + (Powerset)$	
$ m M_0 = S_1 + (\Delta_0^{ m set} - Separation)$	
$M_1 = M_0 + (Regularity) + (Transitive Containement)$	
$\mathrm{KP}^- = \mathrm{S}_0 + (\mathrm{Infinity}) + (\Delta_0^{\mathrm{set}} - \mathrm{Separation}) + (\Delta_0^{\mathrm{set}} - \mathrm{Collection})$	
$\mathrm{KP^{-\infty}} = \mathrm{S_0} + (\mathrm{Foundation}) + (\Delta_0^{\mathrm{set}} - \mathrm{Separation}) + (\Delta_0^{\mathrm{set}} - \mathrm{Collection})$	
$KP = KP^{-\infty} + (Infinity) = KP^{-} + (Foundation)$	
$KPl = KP + (universe \ limit \ of \ admissible \ sets)$	
KPi = KP + (recursively inaccessible universe)	
KPh = KP+(recursively hyperinaccessible universe)	
KPM = KP+(recursively Mahlo universe)	
$ZBQC = M_0 + (Regularity) + (Infinity) + (Choice)$	NFU+(Infinity)+(Choice)
$MAC = M_1 + (Infinity) + (Choice) = ZBQC + (Transitive Containement)$	Tit o (timing) (choice)
$MOST = MAC + (\Delta_0^{\text{set}} - \text{Collection}) = ZBQC + (\Gamma \text{Maissitive Containement})$	
$Z = S_1 + (\text{Regularity}) + (\text{Infinity}) + (\sum_{\omega}^{\infty} - \text{Separation})$	
$Z = S_1 + (\text{Tregularity}) + (\text{Hinnity}) + (Z_{\omega} - \text{Separation})$ $ZC = Z + (\text{Choice}) = ZBCQ + (\Sigma_{\omega}^{\text{set}} - \text{Separation})$	
$\frac{ZC = Z + (Cholce) = ZBCQ + (Z_{\omega} \text{-Separation})}{MAC + \forall m (\beth_{\beth_m} \text{ exists})}$	NFU+(Counting)
	, , ,
$Z+(\Pi_2^{\mathrm{set}}$ -Replacement)	$NFU^* = NFU + (Counting) + (Strongly Cantorian Separation)$
$\mathrm{Z}+(\Pi_m^{\mathrm{set}} ext{-Replacement})$	ACT, CD
$\mathrm{ZF} = \mathrm{Z} + (\Pi_{\mathrm{set}}^{\mathrm{set}} - \mathrm{Replacement})$	AST, GB
ZFC = ZF+(Choice)	NBG = GBC = GB + (Global Choice) $NBG + (Global Choice)$
NBG+(Class Forcing Theorem)	NBG+(Clopen Class Game Determinacy)
$ ext{MK} =  ext{NBG} + (\Pi_{\infty}^{ ext{class}} -  ext{CA})$	and (all pressed as a second a
ZFC+(there is an inaccessible cardinal)	ZFC+( $\Pi_1^1$ Perfect Set Property), ZFC+( $\Sigma_3^1$ Lebesgue measurability)
$ ext{ZFC+(there are }\omega  ext{ inaccessible cardinals)}$	$\mathrm{ZFC} + (\forall \alpha (\omega \le \alpha \le \aleph_{\omega} \implies  V_{\alpha} \cap L  =  \alpha ))$
ZFC+(there is a proper class of inaccessible cardinals)	ZFC+(Grothiendieck Universe Axiom)
ZFC+(there is a $\Sigma_n^{\text{set}}$ -reflecting cardinal)	
ZFC+(there is a $\Sigma_{\omega}^{\text{set}}$ -reflecting cardinal), ZFC+(Ord is Mahlo)	
ZFC+(there is an uplifting cardinal)	ZFC+(Resurrection Axioms)
ZFC+(there is a Mahlo cardinal)	
$\mathrm{SMAH} = \mathrm{ZFC} + (\mathrm{there} \ \mathrm{is} \ \mathrm{a} \ n \mathrm{-Mahlo} \ \mathrm{cardinal})_{n \in \mathbb{N}}$	NFUA = NFU + (Infinity) + (Cantorian Sets)
$SMAH^+ = ZFC + \forall n \text{(there is a } n\text{-Mahlo cardinal)}$	
MK+(Ord is weakly compact)	$GPK_{\infty}^{+} = GPK^{+} + (Infinity), NFUB = NFU + (Infinity) + (Cantorian Sets) + (Small Ordinals)$
ZFC+(there is a weakly compact cardinal)	$ ext{ZFC}+(\omega_2  ext{ has the tree property})$
ZFC+(there is a totally indescribable cardinal)	
${ m ZFC+} orall n ({ m there \ is \ a \ n-subtle \ cardinal})$	
ZFC+(there is a totally ineffable cardinal)	
$ZFC+\forall \alpha(\alpha<\omega_1 \implies \text{there is a }\alpha\text{-Erdős cardinal})$	
$ZFC+(0^{\#} \text{ exists}), ZFC+(L \models \aleph_{\omega} \text{ is regular})$	$\operatorname{ZFC} + \forall \alpha (\alpha \geq \omega \implies  V_{\alpha} \cap L  =  \alpha ), \operatorname{ZFC} + (\operatorname{parameter-free} \Sigma_{1}^{1} - \operatorname{determinacy})$
$ZFC + \forall x (x \in \mathbb{R} \implies x^{\#} \text{ exists})$	$ ext{ZFC+}(\Sigma_1^1 ext{-determinacy})$
$ ext{ZFC+} orall x(x^\#  ext{ exists})$	$\mathrm{ZFC}+(\Sigma_2^1 \text{ universal Baireness})$
${ m ZFC+(there~is~a~\omega_1-Erd\~os~cardinal)}$	ZFC+(Chang's Conjecture)
$SRP = ZFC + (there is cardinal with the n-stationary Ramsey property)_{n \in \mathbb{N}}$	
$SRP^+ = ZFC + \forall n \text{(there is a cardinal with the } n\text{-stationary Ramsey property)}$	
MK+(Ord is measurable)	NFUM = NFU + (Infinity) + (Large Ordinals) + (Small Ordinals)
ZFM = ZFC + (there is a measurable cardinal)	$\operatorname{ZFC+}(\operatorname{NS}_{\omega_1} \text{ is precipitous}), \operatorname{ZF+}(\omega_1 \text{ is measurable})$
ZFC+(there is a measurable cardinal $\kappa$ such that $o(\kappa)=2$ )	$ ext{ZFC+(NS}_{\omega_2}  ext{ is precipitous)}$
ZFC+(there is a measurable cardinal $\kappa$ such that $o(\kappa) = \kappa^{++}$ )	$ ZFC + \neg SCH, ZFC + (2^{\aleph_{\omega}} = \aleph_{\omega+2}) $
MK+(Ord is Woodin)	$Z_3+( ext{parameter-free }\Delta^1_2 ext{-determinacy})$
ZFC+(there is a Woodin cardinal)	$Z_3$ +(parameter-nee $\Delta_2$ -determinacy) $ZFC+(\Delta_2^1\text{-determinacy}), ZFC+(OD \models AD), ZFC+(NS_{\omega_1} \text{ is } \omega_2\text{-saturated})$
$\operatorname{ZFC+}(\operatorname{there} \text{ is a Woodin cardinals})_{n\in\mathbb{N}}$	
$ZFC+$ (there are $\omega$ Woodin cardinals),	
$ ext{ZF+DC+(there are $\omega$ woodin cardinars)},}$	$ \begin{array}{c} \operatorname{ZF+(AD)}, \operatorname{ZFC+(L(\mathbb{R})} \models \operatorname{AD}), \operatorname{ZFC+(OD(\mathbb{R})} \models \operatorname{AD}), \\ \\ \operatorname{ZF+(AD)}, \operatorname{ZFC+(NS}_{\omega_1} \text{ is } \omega_1\text{-dense}) \end{array} $
$ZF+DC+(\omega_1 \text{ is } \mathcal{P}(\omega_1)\text{-strongly compact})$ $ZF+DC+(\omega_1 \text{ is } \mathcal{P}(\mathbb{R})\text{-strongly compact})$	$ ext{ZF+(AD), ZFC+(NS}_{\omega_1}  ext{ is } \omega_1 ext{-dense})$
$ZF+DC+(\omega_1 \text{ is } P(\mathbb{R})\text{-strongly compact})$ $ZFC+(\text{there is a superstrong cardinal})$	$\Sigma\Gamma+DC+(AD_{\mathbb{R}})$
	$\mathrm{ZFC}+(V=L[ec{E}])+\exists \kappa(\lnot\Box_{\kappa})$
ZFC+(there is a subcompact cardinal)	k 47 × ×
ZFC+(there is a strongly compact cardinal)	ZFC+(Proper Forcing Axiom)
ZFC+(there is a supercompact cardinal)	ZFC+(Martin's Maximum)
ZFC+ $\forall n \text{(there is a proper class of } C^{(n)}\text{-extendible cardinals)}$	ZFC+(Vopěnka's Principle)
ZFC+(there is a high-jump cardinal)	
$HUGE = ZFC + (there is a n-huge cardinal)_{n \in \mathbb{N}}$	
$\mathrm{HUGE^+} = \mathrm{ZFC} + orall n  ext{(there is a $n$-huge cardinal)}$	
$\operatorname{ZFC+}(\operatorname{Wholeness}\operatorname{Axiom}\operatorname{WA}_n)$	
$ ext{ZFC+I3} =  ext{ZFC+}\exists \lambda(E_0(\lambda))$	
$ ext{ZFC+I2} =  ext{ZFC+}\exists \lambda(E_1(\lambda))$	
$ ext{ZFC+I1} =  ext{ZFC+}\exists \lambda(E_{\omega}(\lambda))$	
$\mathrm{ZFC}\mathrm{+I0}$	
$ ext{ZF+DC} + \exists \lambda \exists j : V_{\lambda+2} \prec_{\Sigma_{\omega}^{ ext{set}}} V_{\lambda+2}$	
ZF+DC+(there is a Reinhardt cardinal)	
ZF+DC+(there is a Reinhardt cardinal) ZF+DC+(there is a Berkeley cardinal)	