## Translation Manual for Salamuchas Formalization of the Ex Motu Argument

## 1 Logical Notation

Name of Operator	Samalamucha first variant	Second variant	"Standard notation"
Conjunction	p.q	$p \wedge q$	$p \wedge q$
Disjunction	$p \vee q$	$p \lor q$	$p \lor q$
Negation	~ p	~ p	$\neg p$
(Material) Implication	$p\supset q$	$p \rightarrow q$	$p \rightarrow q$
Biconditional	$p \equiv q$	$p \equiv q$	$p \leftrightarrow q$
Universal Quantifier	$[x].\phi(x)$	$\wedge x \phi(x)$	$\forall x.\phi(x)$
Existential Quantifier	$[\exists x].\phi(x)$	$\forall x \phi(x)$	$\exists x. \phi(x)$

## 2 Definitions of relations, predicates, etc.

Notation	Name/Description	Definition	
xRy	Relation (at first!)	the usual	
C'R	Set of all elements of a relation	$x \in C'R \Leftrightarrow \exists t. (tRx \lor xRt)$	
K(R)	Ordering relation	transitive, irreflexive, connected relation	
fx	x is in motion	-	
xRy	x moves y	-	
$M_x(a)$ or $aMx$	a is the proper part of x [sic]	-	
$xA_sy$	x is in aspect S in actu to y [emph. orig.]	-	
Cx	x is a body	-	
$t_i F x t_i$	$t_i$ is the duration of movement of x [sic]	-	
$F(t_i)$ or $Ht_i$	$t_i$ is the finite period of time [sic]	-	