Standard Notations

If you come across something that isn't in the list that is likely to come up, add it and post the document on slack/GitHub again so we're all aware of the update.

Diffusion	X_t
Potential	$U : \mathbb{R}^d \to \mathbb{R}$
Random Variables	Uppercase math font e.g. X, Y, Z
Iteration	X_k
Step Size	h
Taming Function	T
Stationary/Target/ True distribution	π
Normal random variables	Z
Minimum function	$\wedge$ i.e. $\min\{t, s\} = t \wedge s$
Maxiimum function	$\vee$ i.e. $\max\{t, s\} = t \vee s$
Dimension	d
Proposed step	Y
Lipschitz constant	?
Strong convexity constant	?
Number of iterations	N
Startpoint	$X_0 = x_0$

The first ten are Langevin Monte Carlo (LMC) algorithms

Algorithm	Name
Unadjusted Langevin Algorithm	ULA
Tamed Unadjusted Langevin Algorithm	tULA
Coordinatewise Tamed Unadjusted Langevin Algorithm	tULAc
Metropolis Adjusted Langevin Algorithm	MALA
Tamed Metropolis Adjusted Langevin Algorithm	tMALA
Coordinatewise Tamed Metropolis Adjusted Langevin Algorithm	tMALAc
Metropolis Adjusted Langevin Truncated Algorithm	MALTA
Higher Order Langevin Algorithm	HOLA
Tamed Higher Order Langevin Algorithm	tHOLA
Coordinatewise Tamed Higher Order Langevin Algorithm	tHOLAc
Leimkuhler-Matthews Algorithm	LM
Tamed Leimkuhler-Matthews Algorithm	tLM
Coordinatewise Tamed Leimkuhler-Matthews Algorithm	tLMc
Random Walk Metropolis Algorithm	RWM