

# PhD Corrections

## 1.1 General

(KS) Terminology	Use of the word chaotic/chaos could be confusing
	Renamed initial phase of the swarms development to 'disorganised' throughout.

## 1.2 Abstract

(KS) typo	nodes
	agents

## 1.3 Introduction

(KS) Section 1.1 explain boid-based	boid-based
	Paragraph extended to include reference and comparison

## 1.4 Bibliography

(PJ & KS) Dates in references are appearing twice	References 6, 7, 9, 10, 11, 12, 14, 15, 16, 18, 20, 24, 25, 28, 33, 37, 41, 47, 50, 52, 54, 55, 56, 58, 59, 61, 65, 67, 69, 71, 74, 76, 77, 78, 79, 82, 86, 90, 93, 94, 96, 98, 100, 113, 118, 126, 127, 130, 137, 139, 140, 141, 142, 146, 147, 150, 151, 152, 154, 155, 156, 157, 158, 161
	?
(KS) No dates	References 21, 60, 70, 75, 92, 135
	?
(KS) References with no publisher	References 27, 30, 36, 42, 44, 48, 49, 51, 52, 53, 57, 60, 63, 68, 73, 81, 83, 84, 87, 88, 89, 101, 103, 108, 109, 115, 132, 149
	?
(KS) References with capitalised Author	References 88, 149
	?
(KS) References requiring page numbers	Reference 117
	?

## 1.5 Abstract

## 1.6 Introduction

## 1.7 Methods Techniques Tools

(PJ) Citations sections 2.1, 2.7	Separate references
	Split references from Barnes and Bennet appropriately
(PJ) Typo	Section 2.3 interction
	interaction
(PJ) Incorrect reference	Figure 2.6 shows the...
	Equation 2.5 shows ...
(PJ) Formulae 2.1, 2.3, 2.4 - Formula notation	Cardinality notation changed to use $  \cdot  $
	$nbr(b) \triangleq \{b' \in S :  bb'  \leq C_b\}$
	$R(b) = \{b' \in S :  bb'  \leq R_b\}$
	$v_r(b) = -\frac{1}{ R(b) } \left( \sum_{b' \in R(b)} \left(1 - \frac{ bb' }{R_b}\right) bb' \right)$
(PJ) Section 2.6 - Sentence restruc- ture	$\{o \in O :  bo  \leq O_b\}$
	moves an obstacles
	moves it may enter an obstacle's
(PJ) Section 2.8 - Special case refer- ence error	Special case of Equation 2.7
	Special case of Equation 2.8
(PJ) Spelling	Section 2.11
	amp Figure 2.12 Stabalise
	Stabilise
(PJ) Expand Conclusion	No mention of current work
	Added small discussion of current work
(PJ) Explain ^	Section 2.6 uses unexplained notation
	Moved ^ explanation from section 2.9 to 2.6
(PJ) No equation	Section 2.9 uses inline formulae for movement.
	Equation broken out and referenced.

## 1.8 Magnitude Metric

(KS) Table 4.1 → 3.1 Explain parameters	Hexagonal
	Modified labels and altered section to highlight that the parameters are arbitrary as they are only required to create a swarm to highlight the inter-agent relationships that exist.
(PJ) Table 4.2 → 3.2 Explain Labels	Log, Id, N.Id
	Labels expanded in text
(PJ) Section 4.2 → 3.2 Sentence error	vectorTable 4.4
	vector. Table 4.4
(PJ) Section 4.3 → 3.3 Punctuation	= 0) The
	= 0). The
(PJ) Diagram 4.7 → 3.7 Label error	bot
	agent
(KS) Equations 4(3).2, 4(3).3, 4(3).4, 4(3).6, 4(3).7, 4(3).8 and inline equations cardinality notation changed	.
	. for magnitude.  . for cardinality

## 1.9 Swarm Type

(PJ) Typo in introduction	is a swarm
	in a swarm
(PJ) Parameter explanation, Table 5.1 → 4.1	Explain parameter requirements
	Paragraph added
(NE) Table labels in 5.1 → 4.1	Neighbour and agent altered
	Cohesion field, Repulsion field
(PJ) Section 5.2.1 → 4.2.1	Clarify graph mean
	Paragraph extended
(PJ) Section 5.3.1 → 4.3.1	Clarify bi-modal
	Paragraph extended

(PJ) Section 5.4 → 4.4 Comment	Isn't Sect 5.4 a repetition
	Section is a comparison to highlight that the new metric could be used as a replacement for the distance metric and provide additional status information
(PJ) Section 5.4 → 4.4 Punctuation	metric Figure 5.21
	metric. Figure 5.21
(PJ) Section 5.5 → 4.5 Expand	identical?
	description extended

## 1.10 Perimeter Coordination

(PJ) Typo in introduction	applied. Partial
	applied, partial
(PJ) Fig 6(5).4 6(5).28, 6(5).29	Needs to indicate starting point
	Added "Start Point" and arrows to graphs
(PJ) Section 6(5).2 Typo	there
	their
(PJ) Section 6(5).8 Typo	must are
	are
(PJ) Section 6(5).8 Typo	its a goal
	towards it's goal
(PJ) Figure 6(5).31 Title change	speed
	path
(PJ) Section 6(5).9 Reference	tables above
	Tables 6.8, 6.9 and 6.10
(PJ) Figure 6(5).42 Font	$n_{1-7}$
	Font increased
(PJ) Missing Section	Conclusion section missing
	Added conclusion

## 1.11 Concave Reduction

(PJ) Introduction sentence duplicates explanation	Depending upon ....
	Sentence removed

(PJ) Expand explanation	In some circumstances ...
	Circumstance explained
(PJ) Table Reference	Table 8.4 ...
	Table 7.1 (Error in latex label corrected)
(PJ) Figure title clarification Fig 7(6).12, 7(6).13	Baseline/Concave path effect
	Baseline/Concave path effect (after 600 iterations / 60s)
(PJ) Figure title clarification Fig 7(6).16, 7(6).18, 7(6).19	(80/60)
	(cohesion field 80 / repulsion field 60)
(PJ) Table 7.3 Location	Located below Figure 7(6).19
	Moved to below 7(6).16 and referenced.
(PJ) Page 143? Figure reference 7.32	Incorrect latex reference
	Corrected
(PJ) Typo section 7(6).4	seem
	seen
(PJ) Figure title clarification 7(6).38, 7(6).39	60 Obstacle
	repulsion field 60 units for obstacle

## 1.12 Flood Filling

(PJ) Section 8.1.1 Typo	rseultant
	resultant
(PJ) Section 8.1.2 Typo	space. each
	space. Each
(PJ) Section 8.1.2 Typo	seconds. between
	seconds. Between
(PJ) Section 8.1.2 Typo	feild
	field
(PJ) Section 8.1.3 Sentence restructure	uses a swarm that utilises
	uses both

(PJ) Section 8.2 Typo	thier
	their
(PJ) Section 8.2.1 Typo	stabalises
	stabilises
(PJ) Section 8.2.1 Typo	distrurbances
	disturbances

### 1.13 Future Work