CITY UNIVERSITY OF HONG KONG
香港城市大學

A Discussion on Higher Education Development in Hong Kong
論香港高等教育的發展

Submitted to
Department of Public Policy
公共政策學系
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy
哲學博士學位

by

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January 2021
二零二一年一月

To

Abstract

AAA

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First name:	Fei
Degree:	PhD
Department:	Department of Biomedical Engineering

The Qualifying Panel of the above student is composed of:

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Acknowledgements

It has been a long and thrilling journey, with unimaginable challenges, both academic and social, since I came to CityU in the peaceful summer of 2016.

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Symbols

$\overrightarrow{OP}$	Displacement of the micropipette tip P to the origin O
(a, b, c)	Coordinates of $\overrightarrow{OP}$ in the world coordinate frame (O, x, y, z)

Acronyms

PBS	phosphate buffered saline
NCBI	National Center for Biotechnology Information
RNA	ribonucleic acid
DNA	deoxyribonucleic acid
mRNA	messenger RNA
cDNA	complementary DNA
CRISPR	clustered regularly interspaced short palindromic repeats
TGV	train à grande vitesse

Chapter 1

Introduction

English. Русский[1]. Español.

Phosphate buffered saline (PBS), National Center for Biotechnology Information (NCBI), ribonucleic acid (RNA), deoxyribonucleic acid (DNA), messenger RNA (mRNA), complementary DNA (cDNA), clustered regularly interspaced short palindromic repeats (CRISPR), and train à grande vitesse (TGV).

PBS, NCBI, RNA, DNA, mRNA, cDNA, CRISPR, and TGV.

1.1 Background

Inline math $\vec{y} = f(\vec{x})$

$$\vec{E}_{\vec{u}\,\vec{u}} \tag{1.1}$$

$$F\left(x,y\right) = \int_{-\infty}^{x}\int_{-\infty}^{y} f\left(u,v\right)\mathrm{d}u\mathrm{d}v \tag{1.2}$$

[1]Need to use `FreeSerif` or `Times New Roman` font. `newtxtext` and `newpxtext` don't contain Cyrillic letters

$$
\begin{aligned}
F_X(x) = P(X \leqslant x) &= P(X \leqslant x, Y < +\infty) && (1.3)\\
&= \int_{-\infty}^{x} \int_{-\infty}^{+\infty} f(u,v)\,\mathrm{d}u\mathrm{d}v && (1.4)\\
&= \int_{-\infty}^{x} \left[\int_{-\infty}^{+\infty} f(u,v)\,\mathrm{d}v \right] \mathrm{d}u && (1.5)\\
&= \int_{-\infty}^{x} f_X(x)\,\mathrm{d}u && (1.6)
\end{aligned}
$$

$$
\begin{aligned}
F_X(x) = P(X \leqslant x) &= P(X \leqslant x, Y < +\infty)\\
&= \int_{-\infty}^{x} \int_{-\infty}^{+\infty} f(u,v)\,\mathrm{d}u\mathrm{d}v\\
&= \int_{-\infty}^{x} \left[\int_{-\infty}^{+\infty} f(u,v)\,\mathrm{d}v \right] \mathrm{d}u\\
&= \int_{-\infty}^{x} f_X(x)\,\mathrm{d}u
\end{aligned}
\qquad (1.7)
$$

$$R_{11} = \cos\alpha\cos\gamma - \cos\beta\sin\alpha\sin\gamma \quad (1.8a)$$

$$R_{12} = \sin\alpha\cos\gamma + \cos\beta\cos\alpha\sin\gamma \quad (1.8b)$$

$$R_{13} = \sin\beta\sin\gamma \quad (1.8c)$$

$$R_{21} = -\cos\alpha\sin\gamma - \cos\beta\sin\alpha\cos\gamma \quad (1.8d)$$

$$R_{22} = -\sin\alpha\sin\gamma + \cos\beta\cos\alpha\cos\gamma \quad (1.8e)$$

$$R_{23} = \sin\beta\cos\gamma \quad (1.8f)$$

$$R_{31} = \sin\beta\sin\alpha \quad (1.8g)$$

$$R_{32} = -\sin\beta\cos\alpha \quad (1.8h)$$

$$R_{33} = \cos\beta \quad (1.8i)$$

$$a'' = \frac{\cos\alpha\cos\gamma - \cos\beta\sin\alpha\sin\gamma}{\cos\theta}a + \frac{\sin\alpha\cos\gamma + \cos\beta\cos\alpha\sin\gamma}{\cos\theta}b + \frac{\sin\beta\sin\gamma}{\cos\theta}c \quad (1.9a)$$

$$b'' = a\left(-\cos\alpha\sin\gamma - \cos\beta\sin\alpha\cos\gamma\right) + b\left(-\sin\alpha\sin\gamma + \cos\beta\cos\alpha\cos\gamma\right) + c\left(\sin\beta\cos\gamma\right) \quad (1.9b)$$

$$c'' = \left(\cos\beta - \sin\theta\sin\beta\sin\gamma\right)c - \left(-\sin\beta\cos\alpha - \sin\theta\left(\sin\alpha\cos\gamma + \cos\beta\cos\alpha\sin\gamma\right)\right)b + \left(\sin\beta\sin\alpha - \sin\theta\left(\cos\alpha\cos\gamma - \cos\beta\sin\alpha\sin\gamma\right)\right)a \quad (1.9c)$$

1.2 Statement of Problems

1.3 Research Objectives

In brief, the research objectives of this study are enumerated as follows:

1. AAA;
2. BBB;
3. CCC.

1.4 Methodologies and Significance

The major methodologies and their significance are discussed below.

1. AAA.
2. BBB.
3. CCC.

自定義編號和 siunitx 宏包

[1] 你

[2] 我

[3] 他

[4] 1.0 mm/kg

1.5 Summary

Chapter 2

Literature Review

2.1 Introduction

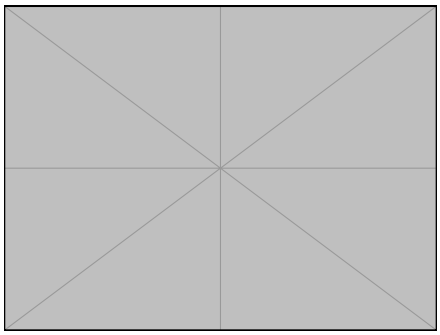
Please refer to the following LaTeX documents [1–7].

And other examples [8–11].

AAABBBCCC

2.2 Summary

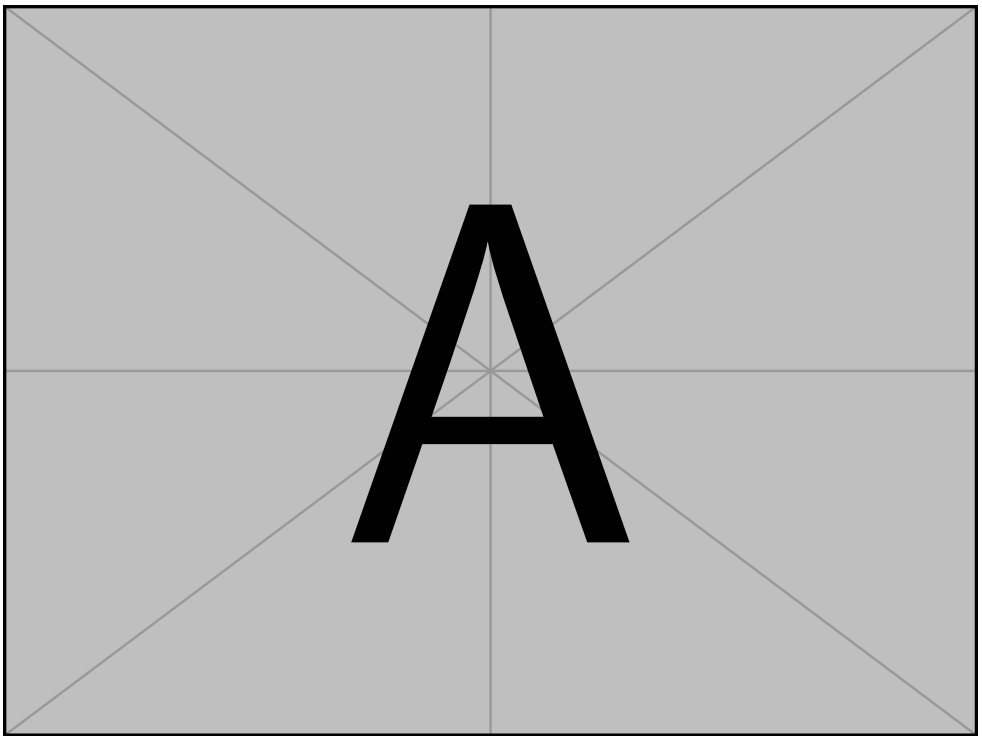
Fig. 2.1 caption



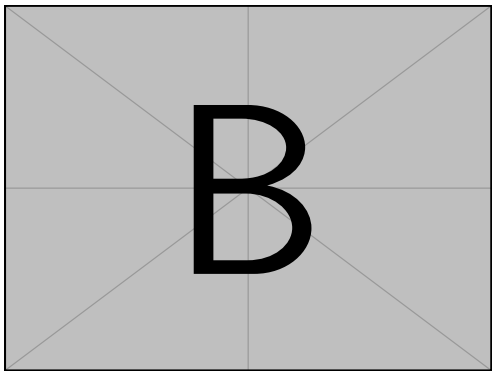
(a)

(b)

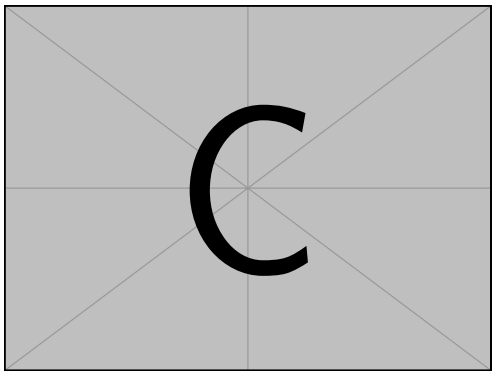
Fig. 2.2 caption.



(a)



(b)



(c)

Fig. 2.3 caption

Chapter 3

Your Main Work

3.1 Introduction

Chapter 2 reviews the literature on the following subjects ...

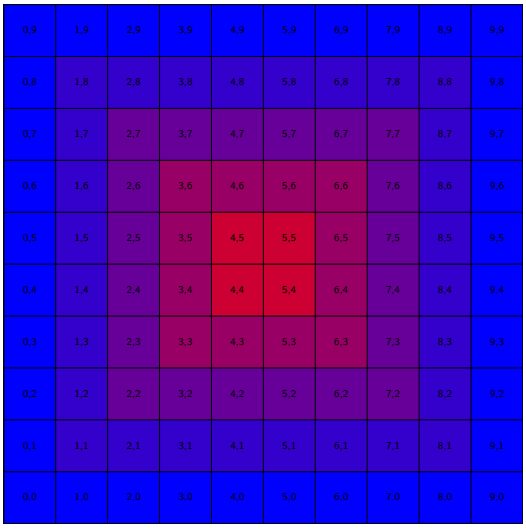


Fig. 3.1 caption.

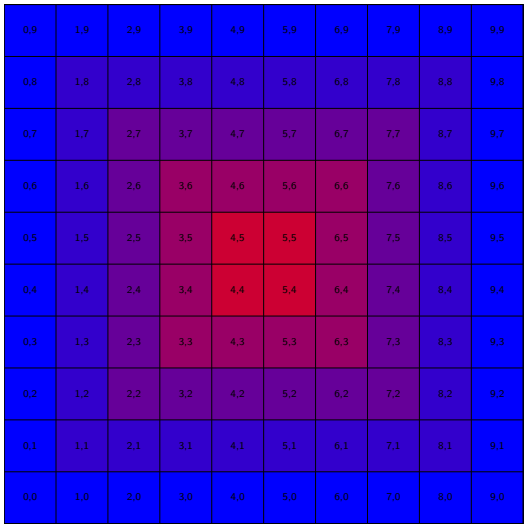


Fig. 3.2 caption.

3.2 Conclusions

Table 3.1 表格

a	b	c	d	e
1	2	3	4	5
6	7	8	9	10
11	12	13	14	15

Table 3.2 The Skewing Angles (β) for $Mu(H) + X_2$ and $Mu(H) + HX$ [a]

	$H(Mu) + F_2$	$H(Mu) + Cl_2$
β(H)	$80.9°$[b]	$83.2°$
β(Mu)	$86.7°$	$87.7°$

[a] for the abstraction reaction, $Mu + HX \rightarrow MuH + X$.

[b] 1 degree $= \pi/180$ radians.

Table 3.3 Alphabet

A2 A3 / A1	B[1]	C[2]
D	E	F
G	H	I

[1] B1

[2] C2

Table 3.4 一個跨頁的表格

First column	**Second column**	**Third column**
One[a]	abcdef ghjijklmn	123.456778
One[b]	abcdef ghjijklmn	123.456778
One	abcdef ghjijklmn	123.456778
One	abcdef ghjijklmn	123.456778
One	abcdef ghjijklmn	123.456778
One	abcdef ghjijklmn	123.456778
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Table 3.4 – continued from previous page

First column	**Second column**	**Third column**
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One	abcdef ghjijklmn	123.456778
One	abcdef ghjijklmn	123.456778
One	abcdef ghjijklmn	123.456778

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Table 3.4 – continued from previous page

First column	**Second column**	**Third column**
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One	abcdef ghjijklmn	123.456778
One	abcdef ghjijklmn	123.456778
One	abcdef ghjijklmn	123.456778
One	abcdef ghjijklmn	123.456778

[a] test test test test test test test test

[b] test2

Source: Made up by daleif

Chapter 4

Experiments

項籍者，下相人也，字羽。初起時，年二十四。其季父項梁，梁父即楚將項燕，爲秦將王翦所戮者也。項氏世世爲楚將，封於項，故姓項氏。

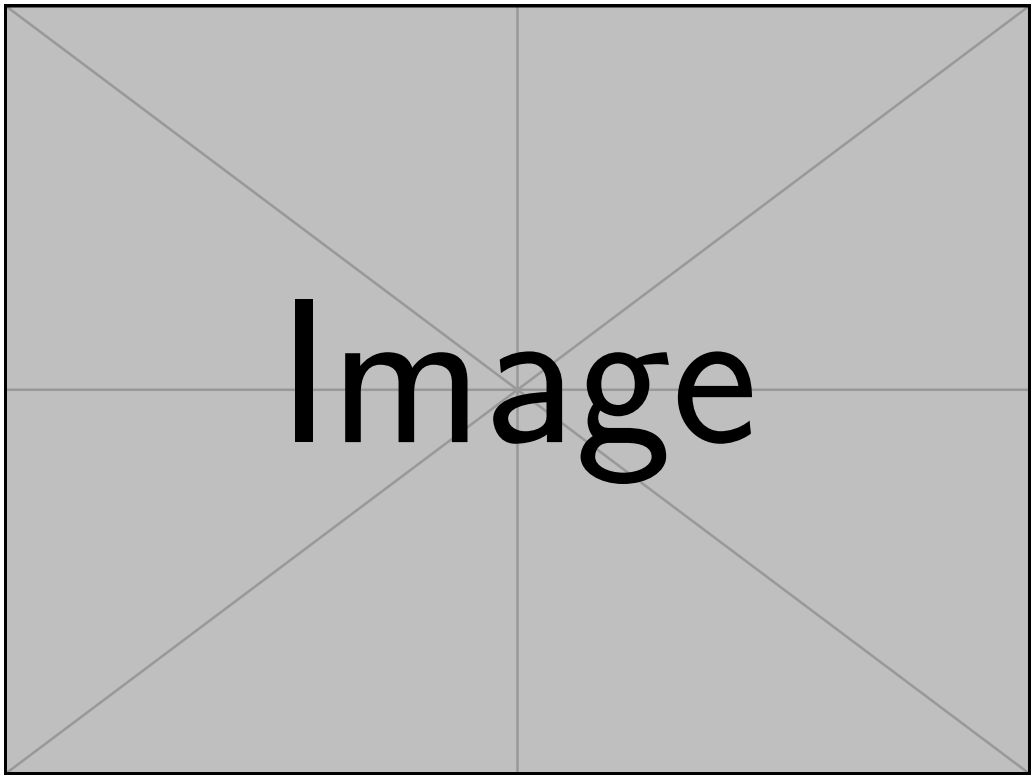

Fig. 4.1 這是一個測試

項籍少時，學書不成，去學劍，又不成。項梁怒之。籍曰：「書足以記名姓而已。劍一人敵，不足學，學萬人敵。」於是項梁乃教籍兵法，籍大喜，略

知其意，又不肯竟學。項梁嘗有櫟陽逮，乃請蘄獄掾曹咎書抵櫟陽獄掾司馬欣，以故事得已。項梁殺人，與籍避仇於吳中。吳中賢士大夫皆出項梁下。每吳中有大繇役及喪，項梁常爲主辦，陰以兵法部勒賓客及子弟，以是知其能。秦始皇帝游會稽，渡浙江，梁與籍俱觀。籍曰：「彼可取而代也。」梁掩其口，曰：「毋妄言，族矣！」梁以此奇籍。籍長八尺餘，力能扛鼎，才氣過人，雖吳中子弟皆已憚籍矣。

秦二世元年七月，陳涉等起大澤中。其九月，會稽守通謂梁曰：「江西皆反，此亦天亡秦之時也。吾聞先即制人，後則爲人所制。吾欲發兵，使公及桓楚將。」是時桓楚亡在澤中。梁曰：「桓楚亡，人莫知其處，獨籍知之耳。」梁乃出，誡籍持劍居外待。梁復入，與守坐，曰：「請召籍，使受命召桓楚。」守曰：「諾。」梁召籍入。須臾，梁眴籍曰：「可行矣！」於是籍遂拔劍斬守頭。項梁持守頭，佩其印綬。門下大驚，擾亂，籍所擊殺數十百人。一府中皆慴伏，莫敢起。梁乃召故所知豪吏，諭以所爲起大事，遂舉吳中兵。使人收下縣，得精兵八千人。梁部署吳中豪傑爲校尉、候、司馬。有一人不得用，自言於梁。梁曰：「前時某喪使公主某事，不能辦，以此不任用公。」眾乃皆伏。於是梁爲會稽守，籍爲裨將，徇下縣。

廣陵人召平於是爲陳王徇廣陵，未能下。聞陳王敗走，秦兵又且至，乃渡江矯陳王命，拜梁爲楚王上柱國。曰：「江東已定，急引兵西擊秦。」項梁乃以八千人渡江而西。聞陳嬰已下東陽，使使欲與連和俱西。陳嬰者，故東陽令史，居縣中，素信謹，稱爲長者。東陽少年殺其令，相聚數千人，欲置長，無適用，乃請陳嬰。嬰謝不能，遂彊立嬰爲長，縣中從者得二萬人。少年欲立嬰便爲王，異軍蒼頭特起。陳嬰母謂嬰曰：「自我爲汝家婦，未嘗聞汝先古之有貴者。今暴得大名，不祥。不如有所屬，事成猶得封侯，事敗易以亡，非世所指名也。」嬰乃不敢爲王。謂其軍吏曰：「項氏世世將家，有名於楚。今欲舉大事，將非其人，不可。我倚名族，亡秦必矣。」於是眾從其言，以兵屬項梁。項梁渡淮，黥布、蒲將軍亦以兵屬焉。凡六七萬人，軍下邳。

當是時，秦嘉已立景駒爲楚王，軍彭城東，欲距項梁。項梁謂軍吏

曰：「陳王先首事，戰不利，未聞所在。今秦嘉倍陳王而立景駒，逆無道。」乃進兵擊秦嘉。秦嘉軍敗走，追之至胡陵。嘉還戰一日，嘉死，軍降。景駒走死梁地。項梁已并秦嘉軍，軍胡陵，將引軍而西。章邯軍至栗，項梁使別將朱雞石、餘樊君與戰。餘樊君死。朱雞石軍敗，亡走胡陵。項梁乃引兵入薛，誅雞石。項梁前使項羽別攻襄城，襄城堅守不下。已拔，皆阬之。還報項梁。項梁聞陳王定死，召諸別將會薛計事。此時沛公亦起沛，往焉。

4.1 Introduction

Listing 4.1 My C-Code

```
1 int main() {
2 printf("hello, world");
3 return 0;
4 }
```

Reference to Listing 4.1.

4.2 Experimental Results

滄海月明珠有淚，藍田日暖玉生煙。　此情可待成追憶，只是當時已惘然。

4.2.1 Some Results

微信圖標

CV **cv**

research gate R^{G}

overleaf

orcid

orcid

open access

Algorithm 4.1 The Bellman-Kalaba algorithm

```
1:  procedure BellmanKalaba(G, u, l, p)
2:      for all v ∈ V(G) do
3:          l(v) ← ∞
4:      end for
5:      l(u) ← 0
6:      repeat
7:          for i ← 1, n do
8:              min ← l(v_i)
9:              for j ← 1, n do
10:                 if min > e(v_i, v_j) + l(v_j) then
11:                     min ← e(v_i, v_j) + l(v_j)
12:                     p(i) ← v_j
13:                 end if
14:             end for
15:             l'(i) ← min
16:         end for
17:         changed ← l ≠ l'
18:         l ← l'
19:     until ¬changed
20: end procedure

21: procedure FindPathBK(v, u, p)
22:     if v = u then
23:         Write v
24:     else
25:         w ← v
26:         while w ≠ u do
27:             Write w
28:             w ← p(w)
29:         end while
30:     end if
31: end procedure
```

4.2.2 Discussion

4.3 Conclusions

Chapter 5

Conclusions

5.1 Summary

5.2 Future Work

References

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Appendix A

Research Output

1. AAA

Appendix B

Curriculum Vitae

Personal Data

Name:	Chan Tai Man
Date of birth:	January 1, 1000