# ggESDA Contents

#### 1 Introduction

- what is SDA
- why is SDA (Trend figure)
- introduce interval-valued data (one of the most common symbolic data type....)
- how to do SDA (introduce EDA, using EDA to analyze interval-valued data)

#### 2 Prominent SDA packages

(preface..., overview all packages in python and R, then state the first three package....)

- 2.1 RSDA
- 2.2 symbolicDA
- 2.3 HistDAWass

(summarize with table)

(none of the above analyze interval-valued data with EDA using ggplot2)

## 3 the ggESDA package

(introduce feature : classic2sym() function can convert yourself...,ggplot2 base....,visualize with multiple type plot...)

- 3.1 classic2sym() function
- 3.2 plot function
- 3.3 PCA function

### 4 Application to real datasets

(like usage..., introduce data and transformation)

- 4.1 univariate
- 4.2 bivariate
- 4.3 multivariate
- 4.4 PCA
- 5 Conclusion