

# A Study of Cuckoo Hashing

Zhijia Chen

No Institute Given

**Abstract.** The abstract should briefly summarize the contents of the paper in 150–250 words.

**Keywords:** First keyword · Second keyword · Another keyword.

## 1 Introduction

### 1.1 Importance of Hashing Table

Some people say that the data are to this century what oil was to the last one: a driving force of growth and change. Indeed, data has been acting as fuels for many techniques such as machine learning , the Inthet of Things and big data anylisis, which in turn promote people to generate even more data. The data in last few decades has been growing expoentially and is projected to keep the exploding trend. According to the report of International Data Corporation (IDC) published in 2014, the total size of data in the digital universe will reach to 44 zetabytes by 2020. So one of the most tough problems for cloud storage systems is to response to queries in a real-time manner and keep a statble throughput over time. And effective data indexing is critical for the query service to keep up with the data growth.

As a result, hash tables have

the problem with hashing table perfect hashing

Please note that the first paragraph of a section or subsection is not indented. The first paragraph that follows a table, figure, equation etc. does not need an indent, either.

Subsequent paragraphs, however, are indented.

**Sample Heading (Third Level)** Only two levels of headings should be numbered. Lower level headings remain unnumbered; they are formatted as run-in headings.

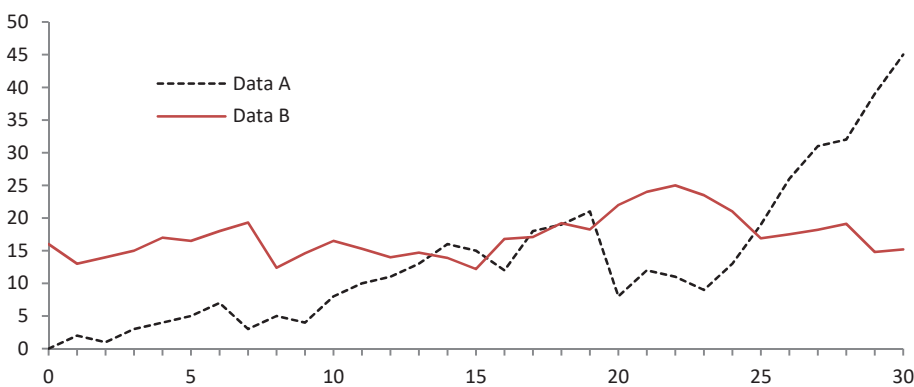
*Sample Heading (Fourth Level)* The contribution should contain no more than four levels of headings. Table 1 gives a summary of all heading levels. Displayed equations are centered and set on a separate line.

$$x + y = z \tag{1}$$

Please try to avoid rasterized images for line-art diagrams and schemas. Whenever possible, use vector graphics instead (see Fig. 1).

**Table 1.** Table captions should be placed above the tables.

Heading level	Example	Font size and style
Title (centered)	<b>Lecture Notes</b>	14 point, bold
1st-level heading	<b>1 Introduction</b>	12 point, bold
2nd-level heading	<b>2.1 Printing Area</b>	10 point, bold
3rd-level heading	<b>Run-in Heading in Bold.</b> Text follows	10 point, bold
4th-level heading	<i>Lowest Level Heading.</i> Text follows	10 point, italic



**Fig. 1.** A figure caption is always placed below the illustration. Please note that short captions are centered, while long ones are justified by the macro package automatically.

**Theorem 1.** *This is a sample theorem. The run-in heading is set in bold, while the following text appears in italics. Definitions, lemmas, propositions, and corollaries are styled the same way.*

*Proof.* Proofs, examples, and remarks have the initial word in italics, while the following text appears in normal font.

For citations of references, we prefer the use of square brackets and consecutive numbers. Citations using labels or the author/year convention are also acceptable. The following bibliography provides a sample reference list with entries for journal articles [1], an LNCS chapter [2], a book [3], proceedings without editors [4], and a homepage [5]. Multiple citations are grouped [1–3], [1, 3–5].

## 2 SmartCuckoo

## 3 Cuckoo Hashing with a Stash

## 4 Horton Table

## 5 Conclusion

## References

1. Author, F.: Article title. Journal **2**(5), 99–110 (2016)
2. Author, F., Author, S.: Title of a proceedings paper. In: Editor, F., Editor, S. (eds.) CONFERENCE 2016, LNCS, vol. 9999, pp. 1–13. Springer, Heidelberg (2016). <https://doi.org/10.1007/1234567890>
3. Author, F., Author, S., Author, T.: Book title. 2nd edn. Publisher, Location (1999)
4. Author, A.-B.: Contribution title. In: 9th International Proceedings on Proceedings, pp. 1–2. Publisher, Location (2010)
5. LNCS Homepage, <http://www.springer.com/lncs>. Last accessed 4 Oct 2017