# **Title**

#### Author

#### **ACM Reference Format:**

Hello world!

**Theorem 1.** This is a great result. It has an equation:

$$\sum_{k=1}^{\infty} \frac{1}{k^2} = \frac{\pi^2}{6} \tag{1}$$

The equation number is (1).

*Proof sketch.* This is the proof sketch of Theorem 1.

#### 1 Section without Theorems

Since this section does not have any appendix content, it will not appear in the appendix. [1]

## 2 Section with Some Appendix Content

Example 2.1. Examples are numbered within a section.

Not much in the main text.

## 3 Section with Theorems (long)

Theorem 2. Another great result.

Proof sketch. Proof sketch of Theorem 2.

**Theorem 3.** Another great result, without any proof sketch.

**Theorem 4.** A regular theorem, not repeated.

*Proof.* This regular theorem is naturally followed with an inline proof.  $\Box$ 

**Theorem 5.** A repeated theorem, but with two proofs, one in Appendix and one in main text.

*Proof.* Main text proof of Theorem 5.

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#### 4 Last Section

**Theorem 6** (with note). Another theorem.

**Theorem 7.** Last theorem, not repeated.

Proof. Proof, inlined.

#### References

 Sergey Brin and Lawrence Page. The anatomy of a large-scale hypertextual Web search engine. Computer Networks, 30(1-7):107-117, April 1998

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**Theorem 1.** This is a great result. It has an equation:

$$\sum_{k=1}^{\infty} \frac{1}{k^2} = \frac{\pi^2}{6} \tag{1}$$

*Proof.* This is the proof of Theorem 1.

## A Material for Section with Some Appendix Content (Section 2)

Hello appendix!

## B Material for Section with Theorems (long) (Section 3)

**Theorem 2.** Another great result.

Proof. Proof of Theorem 2.

For some reason, this proof has an inline Lemma:

**Lemma 8.** This is the lemma (numbered following the theorem numbering).

*Proof.* And this lemma has a proof as well!

This concludes the global proof of Theorem 2.

**Theorem 3.** Another great result, without any proof sketch.

*Proof.* Proof of Theorem 3. It has two references [sit08, BP98].

**Theorem 5.** A repeated theorem, but with two proofs, one in Appendix and one in main text.

*Proof.* Appendix proof of Theorem 5.

And now for no particular reason, two isolated proofs in the appendix, written in two different ways:

*Proof of a non-existing result.* First with a regular proof environment inside a toappendix environment.

*Proof.* Second, with the specific appendixproof environment (but then, cannot change the proof name).

### C Material for Last Section (Section 4)

**Theorem 6** (with note). Another theorem.

This theorem does not have a proof, but a discussion in the appendix. apxproof can figure, because of the theorem environment that follows, that the proof of the following theorem is not a proof of this theorem.

### **Appendix References**

[BP98] Sergey Brin and Lawrence Page. The anatomy of a large-scale hypertextual Web search engine. *Computer Networks*, 30(1–7):107–117, April 1998. [sit08] sitemaps.org. Sitemaps XML format. http://www.sitemaps.org/protocol.php, February 2008.