An Example Contribution for EuroCG 2018*

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Abstract

This example file was adapted from Bettina Speckmann's example file for EuroCG 2005. It uses the style-file `eurocg18.cls` for EuroCG 2018, which was adapted from the LIPIcs-style, with kind permission from Dagstuhl publishing.

Here you should write a concise, informative, and exciting abstract for your paper.

1 Introduction

1.1 Problem Statement and Solution

1.1.1 Problem Setup

We consider only the two-dimensional setting. We assume ...

Precise Problem Formulation. Describe your problem as clearly as possibly, instead of the usual ...

▶ **Conjecture 1.1.** *Could it really be like this?*

▶ **Observation 1.2.** *Probably not ...*

1.2 Basic Definitions

▶ **Definition 1.3.** Some things are just not definable ...

1.3 Related Results from the Literature

We improve upon the well-known algorithm of Agarwal, Basch, Guibas, Hershberger, and Zhang [1] in the following way: ...

2 The New Algorithm

3 Complexity Analysis

▶ **Theorem 3.1.** *This is the most important theorem.*

Proof. It even comes with a proof ... ◀

We would like to remind you how cute the logo of the Canadian Conference on Computational Geometry 2003 was, see Figure 1.

* Supported by our friends.

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Figure 1 This was the logo of CCCG 2003.

There should be some more text explaining research results in some additional sections, but since this is only an example file ...

An enumeration:

- a
  - 0
  - 1
- b

▶ **Lemma 3.2.** *The following formula holds for all integers $n > 0$:*

$$\sum_{i=1}^{n} i = \frac{n(n+1)}{2} \tag{1}$$

Proof. (Not entirely convincing) Let $T(n) := \frac{n(n-1)}{2}$ denote the claimed formula.

$$\begin{aligned} T(n) - T(n-1) &= \frac{n(n+1)}{2} - \frac{(n-1)n}{2} \\ &= \frac{n(n+1) - (n-1)n}{2} \\ &= \frac{n^2 + n - (n^2 + n)}{2} = \frac{2n}{2} = n \end{aligned} \tag{2}$$

The induction basis $T(0) = \frac{0 \cdot 1}{2} = 0$, together with (2), establishes (1). ◀

▶ **Lemma 3.3.** *And then we also found this lemma, which we state without proof.* ◀

4 Conclusion

What we did is amazing and improves everything that was there before, in particular when compared to [2].

Acknowledgments. We thank the organizers for the tasty cookies.

References

1 P. K. Agarwal, J. Basch, L. J. Guibas, J. Hershberger, and L. Zhang. Deformable free-space tilings for kinetic collision detection. *Int. J. Robotics Res.*, 21(3):179–198, 2002.

2 Donald E. Knuth. *Combinatorial Algorithms, Part 1*, volume 4A of *The Art of Computer Programming*. Addison-Wesley, 2011.