# The Title of My Paper

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#### Abstract

This is my not really very long abstract. This is my not really very long abstract.

### 1 Introduction

Note these beautiful Unicode symbols:  $\ddot{a} \ddot{o} \ddot{u} \in \text{and } B$ . See my papers [6, 5]. Also see [1] and [3] and do not overlook [2] and [4]. See Section 4.

This is another paragraph. This is another paragraph.

The typographically very important effect of hyphenation. The typographically very important effect of hyphenation.

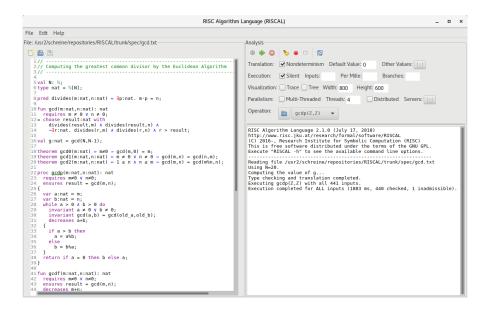


Figure 1: My Figure

### 2 My Results

See Figure 1 on page 2.

**One Thought** Some formulas:

$$(a+b)^2 = a^2 + 2ab + b^2$$
  
$$SUM = SUM = S \cdot U \cdot M$$

No new paragraph (no indentation).

**Another Thought** The Gauss formula  $\sum_{i=1}^{n} i = \frac{n(n+1)}{2}$  displayed:

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

Now a new paragraph (indentation): Einstein says  $E = mc^2$  ("<u>Energy equals mass times the square of the speed of light (c)").</u>

**Some Typography** St. John vs. St. John. Fig. 5 vs. Fig. 5. Vice-president. Monday–Tuesday. Wait — I have an idea. "Wrong Quote" vs. "Correct Quote".

## 3 Some Programs

See Algorithm 1.

### **Algorithm 1** Compute the set *P* of all primes less than equal $n \in \mathbb{N}$

```
Require: n \in \mathbb{N}

Ensure: P = \{p \mid p \in \mathbb{N} \land p \leq n \land isPrime(p)\}

P \leftarrow \emptyset

C \leftarrow \{2, ..., n\}

while C \neq \emptyset do

p \leftarrow \min(C)

P \leftarrow P \cup \{p\}

C \leftarrow \{c \in C : p \nmid c\}

end while
```

```
// HelloWorld.cpp
#include <iostream>
using namespace std;
int main() {
  char message[] = "Hello, World!";
  for (int i=0; i<10; i++)
    cout << message << "\n";</pre>
}
// HelloWorld.cpp
#include <iostream >
using namespace std;
int main() {
  char message[] = "Hello, World!";
  for (int i = 0; i < 10; i + +)
    cout << message << "\n";</pre>
}
```

### 4 Conclusions

#### References

- [1] Wolfgang Ahrendt et al., eds. *Deductive Software Verification The KeY Book: From Theory to Practice*. Vol. 10001. Lecture Notes in Computer Science. Springer, Berlin, 2018. DOI: 10.1007/978-3-319-49812-6.
- [2] Mike Barnett, K. Rustan M. Leino, and Wolfram Schulte. "The Spec# Programming System: An Overview". In: *Construction and Analysis of Safe, Secure, and Interoperable Smart Devices (CASSIS 2004), Marseille, France, March 10-14, 2004.* Ed. by Mihaela Bobaru et al. Vol. 3362. Lecture Notes in Computer Science. Springer, Berlin, Germany, 2004, pp. 49–69. DOI: 10.1007/978-3-540-30569-9\_3.
- [3] David R. Cok. "OpenJML: JML for Java 7 by Extending OpenJDK". In: *NASA Formal Methods (NFM 2011), Pasadena, CA, USA, April 18–20, 2011.* Ed. by Mihaela Bobaru et al. Vol. 6617. Lecture Notes in Computer Science. Springer, Berlin, Germany, 2011, pp. 472–479. DOI: 10.1007/978-3-642-20398-5\_35.
- [4] K. Rustan M. Leino. "Dafny: An Automatic Program Verifier for Functional Correctness". In: Logic Programming and Automated Reasoning (LPAR-16), Dakar, Senegal, April 25–May 1, 2010. Ed. by Edmund M. Clarke and Andrei Voronkov. Vol. 6355. Lecture Notes in Computer Science. Springer, Berlin, Germany, 2010, pp. 348–370. DOI: 10.1007/978-3-642-17511-4\_20.
- [5] Wolfgang Schreiner. "Validating Mathematical Theories and Algorithms with RISCAL". In: CICM 2018, 11th Conference on Intelligent Computer Mathematics, Hagenberg, Austria, August 13–17. Ed. by F. Rabe et al. Vol. 11006. Lecture Notes in Computer Science/Lecture Notes in Artificial Intelligence. Springer, Berlin, 2018, pp. 248–254. DOI: 10.1007/978-3-319-96812-4\_21.
- [6] Wolfgang Schreiner, Alexander Brunhuemer, and Christoph Fürst. "Teaching the Formalization of Mathematical Theories and Algorithms via the Automatic Checking of Finite Models". In: *Post-Proceedings ThEdu'17, Theorem proving components for Educational software, Gothenburg, Sweden, August 6, 2017.* Ed. by Pedro Quaresma and Walther Neuper. Vol. 267. EPTCS. 2018, pp. 120–139. DOI: 10.4204/EPTCS.267.8.