# A Template for Cryptologic Papers

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**Abstract.** Convince everyone that your work is exciting and worthwhile for a in-depth read in a single self-contained paragraph.

Keywords: Cryptology  $\cdot$  Research  $\cdot$  Papers

#### 1 Introduction

Introduction goes here.

#### 2 Technical Overview

Summarize your work so that non-experts can get the main ideas by reading the Introduction and Technical Overview alone. They should be self-contained and within a 10-page limit. The original two-party authenticated garbling paper [1] serves as an example for a good technical overview.

#### 3 Preliminaries

We list the notations of this paper in Section 3.1.

#### 3.1 Notation

We use  $\lambda$  to denote the computational security parameter. We use log to denote logarithms in base 2. We define  $[a,b)=\{a,\ldots,b-1\}$  and write  $[a,b]=\{a,\ldots,b\}$ . We write  $x\leftarrow S$  to denote sampling x uniformly at random from a finite set S. We use  $\{x_i\}_{i\in S}$  to denote the set that consists of all elements with indices in set S. When the context is clear, we abuse the notation and use  $\{x_i\}$  to denote such a set.

We use bold lower-case letters like  $\boldsymbol{a}$  for column vectors and bold uppercase letters like  $\boldsymbol{A}$  for matrices. We let  $a_i$  denote the *i*-th component of  $\boldsymbol{a}$  (with  $a_0$  the first entry) and  $\boldsymbol{a}[i,j]$  denote the sub-vector of  $\boldsymbol{a}$  with indices [i,j].

## 4 The Main Construction

Explain your constructions in detail in this section.

### 5 Performance Evaluation

Evaluation goes here.

### References

 Wang, X., Ranellucci, S., Katz, J.: Authenticated garbling and efficient maliciously secure two-party computation. In: Thuraisingham, B.M., Evans, D., Malkin, T., Xu, D. (eds.) ACM CCS 2017. pp. 21–37. ACM Press (Oct / Nov 2017). https: //doi.org/10.1145/3133956.3134053