

# Table of contents

Table of contents	1
Computation time	1
Experimental condition	1
True object	1
Tester objects	1
Cases	2
MSE of empirical distributions	3
Consistency test	3
MSE of estimators	4
Comparison of analytical results	4
Comparison of parametrization	4
Comparison of estimators	5

## Computation time

Total	1.4686129490534465min.
-------	------------------------

## Experimental condition

Type of tomography	StandardQpt
Nrep	100
N	[100, 1000]
RNG seed	777

## True object

Type	Gate
Dim	2
HS	[[1. 0. 0. 0. ]

## Tester objects

0	Type	State
	Dim	2
	Vec	[0.70710678 0.70710678 0. 0. ]
1	Type	State
	Dim	2
	Vec	[0.70710678 0. 0.70710678 0. ]
2	Type	State
	Dim	2
	Vec	[0.70710678 0. 0. 0.70710678]
3	Type	State
	Dim	2
	Vec	[ 0.70710678 0. 0. -0.70710678]
4	Type	Povm
	Dim	2
	Number of outcomes	2
	Vecs	[0.70710678 0.70710678 0. 0. ] [ 0.70710678 -0.70710678 0. 0. ]
5	Type	Povm
	Dim	2
	Number of outcomes	2
	Vecs	[0.70710678 0. 0.70710678 0. ] [ 0.70710678 0. -0.70710678 0. ]
6	Type	Povm
	Dim	2
	Number of outcomes	2
	Vecs	[0.70710678 0. 0. 0.70710678] [ 0.70710678 0. 0. -0.70710678]

Cases

	Name	Parameterization	Tomography	Estimator
0	LinearEstimator(True)	True	StandardQpt	LinearEstimator
1	LinearEstimator(False)	False	StandardQpt	LinearEstimator
2	ProjectedLinearEstimator(True)	True	StandardQpt	ProjectedLinearEstimator
3	ProjectedLinearEstimator(False)	False	StandardQpt	ProjectedLinearEstimator

# MSE of empirical distributions



## Consistency test

	Type of tomography	Parametorization	Estimator	Result
0	StandardQpt	True	LinearEstimator	1.924389e-31
1	StandardQpt	False	LinearEstimator	3.013551e-30
2	StandardQpt	True	ProjectedLinearEstimator	1.574758e-30
3	StandardQpt	False	ProjectedLinearEstimator	2.179923e-30

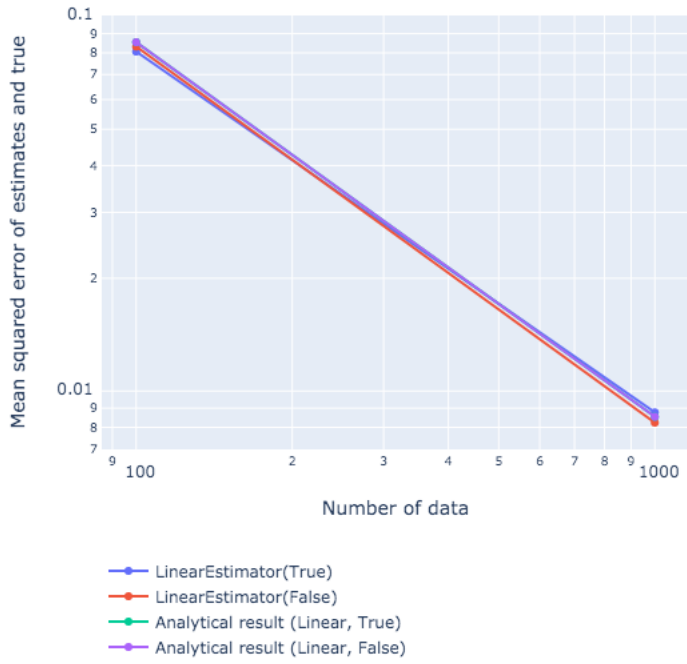
# MSE of estimators

## Comparison of analytical results

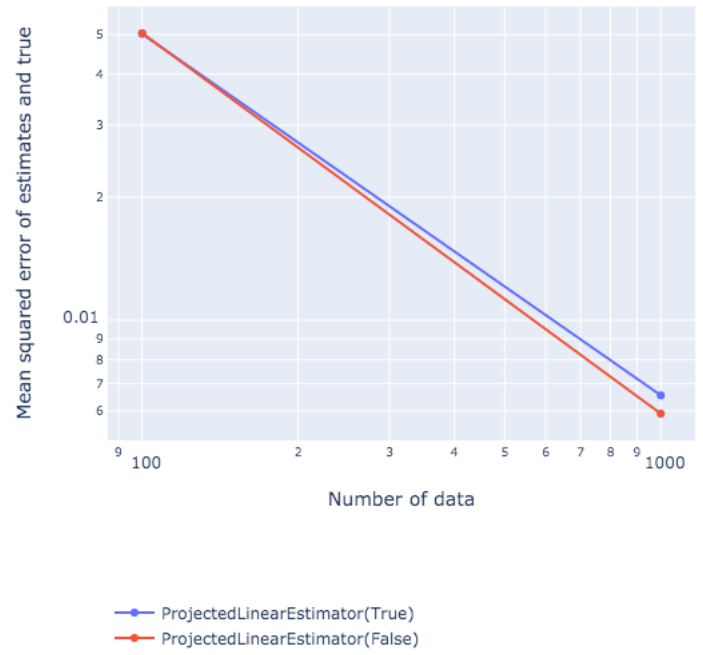


## Comparison of parametrization

Mean squared error  
estimator=LinearEstimator

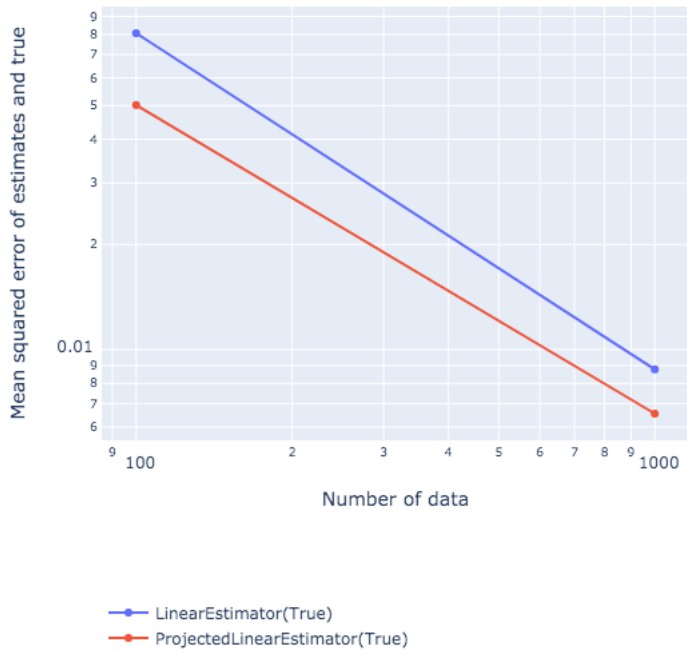


Mean squared error  
estimator=ProjectedLinearEstimator



## Comparison of estimators

Mean squared error  
parametrization=True



Mean squared error  
parametrization=False

