

TITLE

SUBTITLE

*by*

*Name*

TBD

Copyright © 2021 Name

All rights reserved. No part of this publication may be reproduced, stored or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, scanning, or otherwise without written permission from the publisher. It is illegal to copy this book, post it to a website, or distribute it by any other means without permission.

First edition, 2021

ISBN XYZ

Published by TBD

# Contents

# Chapter 1

## My Notebook

### 1.1 Start importing

#### 1.1.1 Some theory

The Wasserstein Distance for 1D distributions can be obtained by:

$$\int_0^1 |C_\alpha^{-1}(r) - C_\beta^{-1}(r)|^p dr$$

Where  $C_\alpha^{-1}$  is the quantile function for the distribution  $\alpha$  (the inverse of the Cumulative Distribution Function). Write some more markdown, with **bold text here** and *italics* and [a link here](#), another **bold** and *more italics* and **another**. Ends with two figures

Figure 1.1: Figure

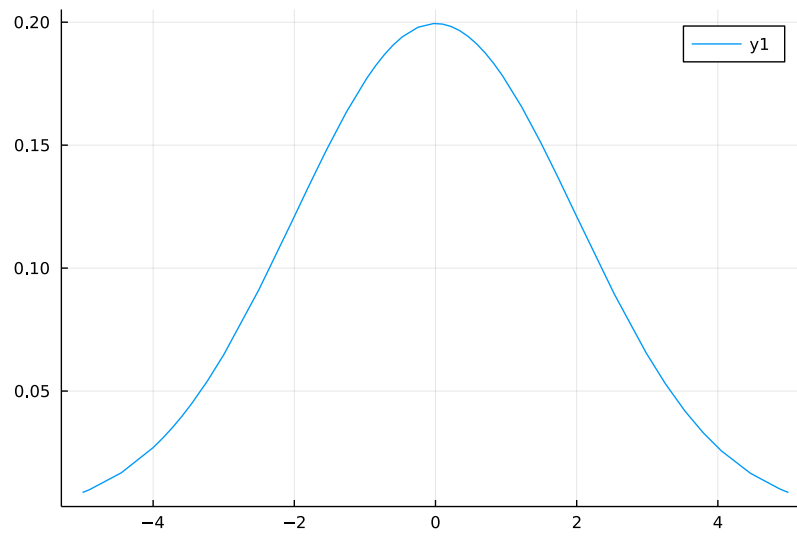
and

Figure 1.2: Figure 2

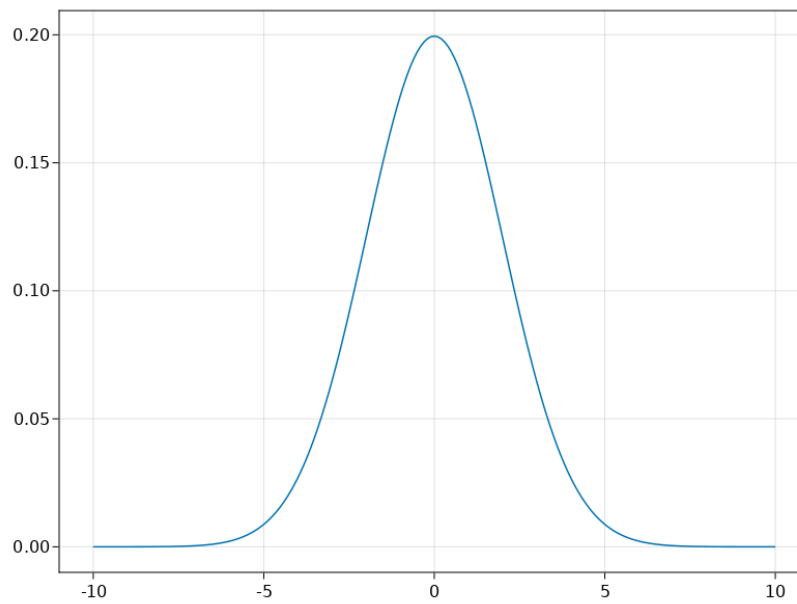
again.

```
1 μ(x) = pdf(Normal(0,2),x)
2 println("Myplot")
3 Plots.plot(μ)
```

## Myplot



```
1 Makie.lines(-10:0.1:10, μ.(-10:0.1:10))
```

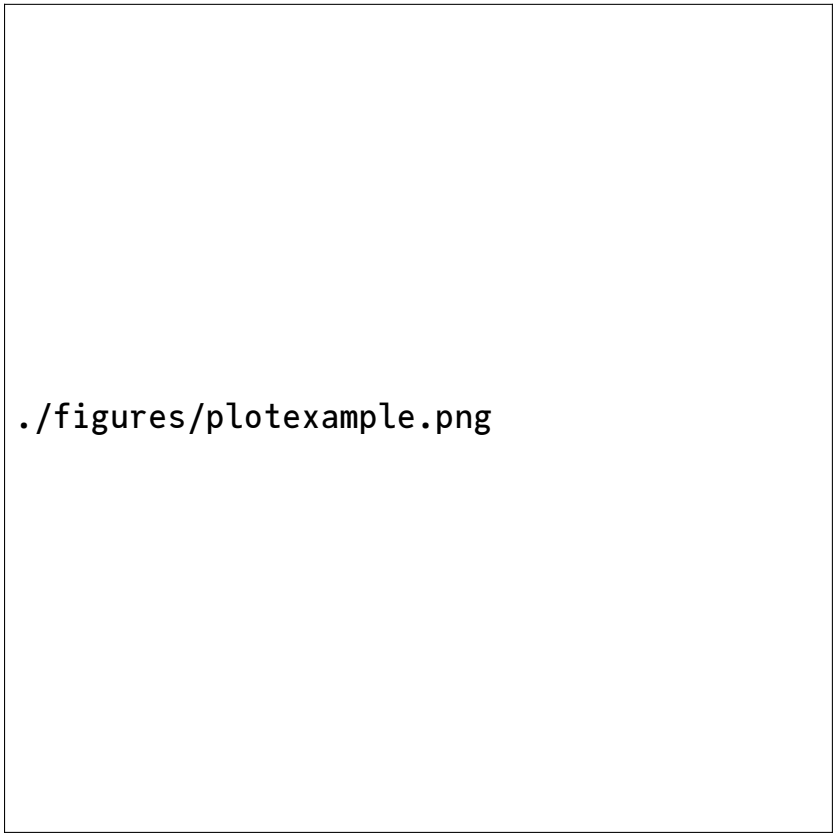


```
1 function example( $\mu$ )
2     for i in 1:10
3         println( $\mu$ (i))
4     end
5 end
6 example( $\mu$ )
```

```
0.17603266338214976
0.12098536225957168
0.06475879783294587
0.02699548325659403
0.00876415024678427
0.0022159242059690038
0.0004363413475228801
6.691511288244268e-5
7.991870553452737e-6
7.433597573671488e-7
```

```
0.17603266338214976
0.12098536225957168
0.06475879783294587
0.02699548325659403
0.00876415024678427
0.0022159242059690038
0.0004363413475228801
6.691511288244268e-5
7.991870553452737e-6
7.433597573671488e-7
```

```
1 rand(10)
```



`./figures/plotexample.png`

Figure 1.3: Figure2

A raw cell

```
1 DataFrame(x=rand(10),y=rand(10))
```

	x	y
	Float64	Float64
1	0.0326174	0.589007
2	0.368715	0.690396
3	0.366451	0.803439
4	0.212434	0.581906
5	0.140433	0.678201
6	0.329857	0.50792
7	0.828484	0.0507595
8	0.480084	0.021381
9	0.784926	0.504361
10	0.43102	0.316321