

# Glass Informatics Workshop at BAM

Prof. Daniel R. Cassar

Illum School of Science



**CNPq**

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SCIENCE, TECHNOLOGY  
AND INNOVATIONS



# Outline

- 1 About the speaker
- 2 Workshop overview
- 3 Acknowledgments

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# Who?

## Background

- Assistant Professor at the Ilum School of Science
- Ph.D. In Materials Science and Engineering
  - Advisor: Prof. Edgar D. Zanotto
- Developer of GlassPy, GlassNet, GLAS, and ViscNet
- Open Science enthusiast



<https://github.com/drcassar>  
<https://www.linkedin.com/in/drcassar>  
<https://www.researchgate.net/profile/Daniel-Cassar-3>  
<https://scholar.google.com/citations?user=oh1z-qoAAAAJ>

# Where?



**CNPEM**  
Brazilian Center for Research  
in Energy and Materials



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# Topics that I will cover

- 1 Brief introduction of the speaker [*you are here*]
- 2 Python programming language
  - 1 Python basics
  - 2 Numpy
  - 3 Pandas
  - 4 Seaborn
- 3 Neural Networks
  - 1 Neural Networks basics
  - 2 GlassNet and ViscNet
  - 3 Creating and training Neural Networks
  - 4 Strategies for optimizing Neural Networks
- 4 SciGlass data with GlassPy

# Python environment



<https://colab.research.google.com>



## Code and reading resources

<https://github.com/drcassar/bam2024>

# A quick note

We will use and explore some features of GlassPy.

GlassPy is a free software Python module currently under development.

GlassPy is a labor of love, developed mostly in my spare time with the hope that it can be useful to the glass community. Please note that it comes without warranty.

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