

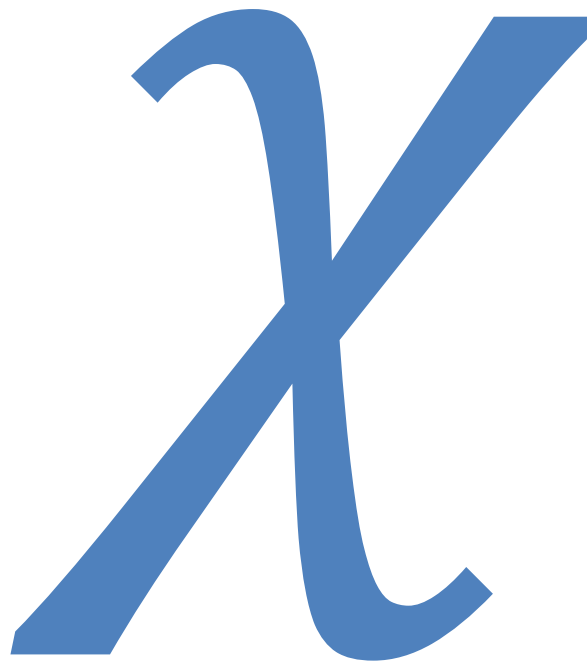
ISSN 2086-0382

E-ISSN 2477-3344

# CAUCHY

**Jurnal Matematika Murni dan Aplikasi**

**Volume 6, Issue 2, May 2020**

A large, blue, stylized letter 'X' is centered on the page. The letter is composed of two thick, curved strokes that intersect in the middle, creating a modern and artistic look.

CAUCHY	Vol. 6	No. 2	Pages: 49 - 99	Malang May 2020	ISSN 2086-0382	E-ISSN 2477-3344
--------	--------	-------	-------------------	--------------------	-------------------	---------------------

# CAUCHY

## Jurnal Matematika Murni dan Aplikasi

Volume 6, Issue 2, May 2020

CAUCHY is a mathematical journal published twice a year on May and November by the Mathematics Department, Faculty of Science and Technology, Universitas Islam Negeri Maulana Malik Ibrahim Malang. This journal includes research papers, literature studies, analysis, and problem solving in Mathematics (Algebra, Analysis, Statistics, Computing and Applied Mathematics).

### EDITORIAL BOARD

- Editor in Chief** : Dr. Sri Harini, M.Si, Maulana Malik Ibrahim State Islamic University of Malang, Indonesia.
- Managing Editor** : Mohammad Jamhuri, M.Si, Maulana Malik Ibrahim State Islamic University of Malang, Indonesia.  
Juhari, M.Si, Maulana Malik Ibrahim State Islamic University of Malang, Indonesia.
- Editorial Board** : **Mario Rosario Guarracino**, Computational and Data Science Laboratory High Performance Computing and Networking Institute National Research Council of Italy, Italy  
**Kartick Chandra Mondal**, Jadavpur University, Salt Lake Campus, India  
**Rowena Alma L. Betty**, University of the Philippines Diliman, Philippines  
**Subanar Seno**, Gadjah Mada University, Indonesia  
**Toto Nusantara**, State University Of Malang, Indonesia  
**Edy Tri Baskoro**, Institut Teknologi Bandung, Indonesia  
**Eridani Eridani**, Airlangga University, Indonesia  
**Abdul Halim Abdullah**, University of Technology Malaysia, Malaysia  
**Kusno**, University of Jember, Indonesia  
**Slamin**, University of Jember, Indonesia  
**Riswan Efendi**, UIN Sultan Syarif Kasim Riau, Indonesia  
**Arief Fatchul Huda**, UIN Sunan Gunung Djati Bandung, Indonesia  
**Usman Pagalay**, Maulana Malik Ibrahim State Islamic University of Malang, Indonesia  
**Abdussakir**, Maulana Malik Ibrahim State Islamic University of Malang, Indonesia  
**Ari Kusumastuti**, Maulana Malik Ibrahim State Islamic University of Malang, Indonesia  
**Fachrur Rozi**, Maulana Malik Ibrahim State Islamic University of Malang, Indonesia

ISSN : 2086-0382

E-ISSN : 2477-3344

# CAUCHY

**Jurnal Matematika Murni dan Aplikasi**

**Volume 6, Issue 2, May 2020**

## EDITORIAL BOARD

**Elly Susanti**, Universitas Islam Negeri Maulana Malik Ibrahim Malang,  
Indonesia

**Assistant Editor** : Mohammad Nafie Jauhari, M.Si, Maulana Malik Ibrahim State Islamic  
University of Malang, Indonesia.

### Editorial Office

Mathematics Department,  
Maulana Malik Ibrahim State Islamic University of Malang  
Gajayana st. 50 Malang, East Java, Indonesia 65144  
Phone (+62) 81336397956, Faximile (+62) 341 558933  
e-mail: [cauchy@uin-malang.ac.id](mailto:cauchy@uin-malang.ac.id)

ISSN : 2086-0382

E-ISSN : 2477-3344

# CAUCHY

**Jurnal Matematika Murni dan Aplikasi**

**Volume 6, Issue 2, May 2020**

## FOCUS AND SCOPE

**CAUCHY-Jurnal Matematika Murni dan Aplikasi** is a mathematical journal published twice a year in May and November by the Mathematics Department, Faculty of Science and Technology, Maulana Malik Ibrahim State Islamic University of Malang.

We welcome authors for original articles (research), review articles, interesting case reports, special articles illustrations that focus on the Mathematics Pure and Applied. Subjects suitable for publication include, but are not limited to the following fields of:

1. Actuarial
2. Algebra
3. Analysis
4. Applied
5. Computing
6. Econometrics
7. Statistics

# CAUCHY

## Jurnal Matematika Murni dan Aplikasi

Volume 6, Issue 2, May 2020

### INDEXING AND ABSTRACTING

CAUCHY-Jurnal Matematika Murni dan Aplikasi has been covered (indexed and abstracted) by following services:

1. **DOAJ** - (2016-.)(<https://doaj.org/toc/2477-3344>)
2. **Dimensions**
3. **Moraref** - (2015-.)-(<http://moraref.or.id/index.php/browse/index/36>)
4. **OneSearch Indonesia** - (2015-.)-([http://onesearch.id/Search/Results?filter\[\]=repoId:IOS2732](http://onesearch.id/Search/Results?filter[]=repoId:IOS2732))
5. **Mendeley** - (2013-.)-(<https://www.mendeley.com/groups/5034091/cauchy/papers/>)
6. **Indonesian Scientific Journal Database (ISJD)** - (2013-.)-(<http://isjd.pdii.lipi.go.id/index.php/Direktori-Jurnal.html>)
7. **Google Scholar** - (2009-.)-([https://scholar.google.co.id/citations?hl=en&view\\_op=list\\_works&gmla=AJsN-F60moFBk7Q0o2Q-9-XUIMca1zI8OZ9Lp2EhCtubhL9dCisxNYH9sAiEAU0g0UDT8tyM6Jk3Z666Zu46VRsBYZ6Vjc2a\\_w&user=dr K-5HkAAAAJ](https://scholar.google.co.id/citations?hl=en&view_op=list_works&gmla=AJsN-F60moFBk7Q0o2Q-9-XUIMca1zI8OZ9Lp2EhCtubhL9dCisxNYH9sAiEAU0g0UDT8tyM6Jk3Z666Zu46VRsBYZ6Vjc2a_w&user=dr K-5HkAAAAJ))
8. **IPI** - (2009-.)-(<http://id.portalgaruda.org/?ref=browse&mod=viewjournal&journal=5272>)

# CAUCHEY

## Jurnal Matematika Murni dan Aplikasi

Volume 6, Issue 2, May 2020

### TABLE OF CONTENTS

Cross-Covariance Weight of GSTAR-SUR Model for Rainfall Forecasting in Agricultural Areas .....	49 – 57
Basis Existence of Internal n-Graph Space .....	58 – 65
Pyramid Population Prediction using Age Structure Model .....	66 – 76
Mathematical Model Quartic Curve Bezier of Modification Cubic Curve Bezier ....	77 – 83
On Square-Integrable Representations of A Lie Group of 4-Dimensional Standard Filiform Lie Algebra .....	84 – 90
Sensitivity Analysis of Mathematical Model of Coronavirus Disease (COVID-19) Transmission .....	91 – 99