### Asst. Prof. ERCAN GÜRVİT

### **Personal Information**

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## **Biography**

Ercan GÜRVIT 1962 yılında İstanbul'da dogdu. 1981 yılında Özel Saint-Joseph Fransız Erkek lisesinden, 1989 yılında Bogaziçi Üniversitesi İdari BilimlerFakültesi İsletme Bölümü Ön Lisans programından mezun oldu. Devamında 2007 yılında Marmara Üniversitesi Fen-Edebiyat Fakültesi Matematik Bölümü'nden ve 2009 yılında da Marmara Üniversitesi Fen-Bilimleri Enstitüsü Matematik Anabilim Dalı Uygulamalı Matematik programından Yüksek Lisans mezuniyetini aldı. 2020 yılında Marmara Üniversitesi Fen-Bilimleri Enstitüsü Matematik Anabilim Dalı Uygulamalı Matematik programından Doktora mezuniyetini aldı.

#### **Education Information**

Doctorate, Marmara University, Institute for Graduate Studies in Pure and Applied Sciences, Department of Mathematics, Turkey 2009 - 2020

Postgraduate, Marmara University, Institute for Graduate Studies in Pure and Applied Sciences, Department of Mathematics, Turkey 2007 - 2009

Undergraduate, Marmara University, Faculty of Arts and Sciences, Mathematics, Turkey 2000 - 2007 Associate Degree, Bogazici University, Faculty Of Economics And Administrative Sciences, Department Of Business, Turkey 1983 - 1988

### Foreign Languages

German, B1 Intermediate French, C2 Mastery English, C2 Mastery Italian, A2 Elementary

### **Research Areas**

Mathematics, Natural Sciences

### **Academic Titles / Tasks**

Lecturer, Marmara University, Faculty of Arts and Sciences, Mathematics, 2014 - Continues

Published journal articles indexed by SCI, SSCI, and AHCI

I. The fluctuationlessness approach to the numerical integration of functions with a single variable by integrating Taylor expansion with explicit remainder term

Baykara N. A., GÜRVİT E., Demiralp M.

JOURNAL OF MATHEMATICAL CHEMISTRY, vol.49, no.2, pp.393-406, 2011 (SCI-Expanded)

## Refereed Congress / Symposium Publications in Proceedings

I. Multivariate Numerical Integration via Fluctuationlessness Theorem: Case Study

Baykara N. A., GÜRVİT E.

11th International Conference on Mathematical Problems in Engineering, Aerospace and Sciences (ICNPAA), La Rochelle, France, 4 - 08 July 2016, vol.1798

II. Recovery of Missing Data via Wavelets Followed by High-Dimensional Modeling

GÜRVİT E., Baykara N. A.

11th International Conference on Mathematical Problems in Engineering, Aerospace and Sciences (ICNPAA), La Rochelle, France, 4 - 08 July 2016, vol.1798

III. Separate Node Ascending Derivatives Expansion (SNADE) for Univariate Functions: Univariate Numerical Integration

Baykara N. A., GÜRVİT E.

International Conference on Numerical Analysis and Applied Mathematics (ICNAAM), Rhodes, Greece, 22 - 28 September 2014, vol.1648

IV. Separate Node Ascending Derivatives Expansion (SNADE) for Univariate Functions: Node Optimization via Partial Fluctuation Suppression

GÜRVİT E., Baykara N. A.

International Conference on Numerical Analysis and Applied Mathematics (ICNAAM), Rhodes, Greece, 22 - 28 September 2014, vol.1648

V. Univariate Function Decomposition Via Tridiagonal Vector Enhanced Multivariance Products Representation (TVEMPR)

GÜRVİT E., Baykara N. A., Demiralp M.

International Conference on Mathematics and Computers in Sciences and in Industry (MCSI), Varna, Bulgaria, 13 - 15 September 2014, pp.189-194

VI. UNIVARIATE APPROXIMATE INTEGRATION VIA NESTED TAYLOR MULTIVARIATE FUNCTION DECOMPOSITION

GÜRVİT E., Baykara N. A.

10th International Conference on Mathematical Problems in Engineering, Aerospace and Sciences (ICNPAA), Narvik, Norway, 15 - 18 July 2014, vol.1637, pp.373-376

VII. NESTED TAYLOR DECOMPOSITION IN MULTIVARIATE FUNCTION DECOMPOSITION

Baykara N. A., GÜRVİT E.

10th International Conference on Mathematical Problems in Engineering, Aerospace and Sciences (ICNPAA), Narvik, Norway, 15 - 18 July 2014, vol.1637, pp.134-137

VIII. Nested Taylor Decomposition of Univariate Functions under Fluctuationlessness Approximation GÜRVİT E., Baykara N. A.

International Conference of Computational Methods in Sciences and Engineering 2014 (ICCMSE), Athens, Greece, 4 - 07 April 2014, vol.1618, pp.895-898

IX. Numerical Integration Based on Nested Taylor Decomposition of Univariate Functions under Fluctuationlessness Approximation

Baykara N. A., GÜRVİT E.

International Conference of Computational Methods in Sciences and Engineering 2014 (ICCMSE), Athens, Greece, 4 - 07 April 2014, vol.1618, pp.899-902

X. Multinomialization of the Classical Three Body Problem Before Applying Probabilistic Evolution Approach

GÜRVİT E., Baykara N. A.

International Conference of Numerical Analysis and Applied Mathematics (ICNAAM), Kos, Greece, 19 - 25 September 2012, vol.1479, pp.1990-1993

### XI. Multi Nodalset Fluctuation Free Integration in Taylor Remainder's Evaluation

GÜRVİT E., Baykara N. A., Demiralp M.

International Conference on Numerical Analysis and Applied Mathematics, Rhodes, Greece, 19 - 25 September 2010, vol.1281, pp.1944-1946

### XII. Multi Nodalset Fluctuation Free Approximation in Taylor Remainder's Evaluation

Baykara N. A., GÜRVİT E., Demiralp M.

International Conference on Numerical Analysis and Applied Mathematics, Rhodes, Greece, 19 - 25 September 2010, vol.1281, pp.1939-1940

## XIII. Fluctuation Studies in the Infinite Interval Matrix Representations of Operator Products and Their Decompositions

Baykara N. A., GÜRVİT E., Demiralp M.

7th International Conference on Computational Methods in Science and Engineering (ICCMSE), Rhodes, Greece, 29 September - 04 October 2009, vol.1504, pp.808-811

## XIV. Fluctuation Studies on the Finite Interval Matrix Representations of Operator Products and Their Decompositions

GÜRVİT E., Baykara N. A., Demiralp M.

7th International Conference on Computational Methods in Science and Engineering (ICCMSE), Rhodes, Greece, 29 September - 04 October 2009, vol.1504, pp.812-815

## XV. Numerical Integration of Bivariate Functions Using Fluctuationlessness Theorem with a Trigonometric Basis Function to Deal with Highly Oscillatory Functions

GÜRVİT E., Baykara N. A., Demiralp M.

11th International Conference on Mathematical Methods and Computational Techniques in Electrical Engineering/Applied Computing Conference 2009, Vouliagmeni, Greece, 28 - 30 September 2009, pp.400-401

## XVI. Numerical Approximation to Multivariate Functions Using Fluctuationlessness Theorem with a Trigonometric Basis Function to Deal with Highly Oscillatory Functions

Baykara N. A., GÜRVİT E., Demiralp M.

11th International Conference on Mathematical Methods and Computational Techniques in Electrical Engineering/Applied Computing Conference 2009, Vouliagmeni, Greece, 28 - 30 September 2009, pp.394-395

# XVII. Taylor Series Expansion with the Fluctuation Freely Approximated Remainder Over Highly Oscillatory Basis Functions

GÜRVİT E., Baykara N. A., Demiralp M.

International Conference on Numerical Analysis and Applied Mathematics, Rethimnon, Greece, 18 - 22 September 2009, vol.1168, pp.432-433

# XVIII. Fluctuationless Univariate Integration Through Taylor Expansion with Remainder by Using Oscillatory Function Basis Sets

Baykara N. A., GÜRVİT E., Demiralp M.

International Conference on Numerical Analysis and Applied Mathematics, Rethimnon, Greece, 18 - 22 September 2009, vol.1168, pp.428-429

# XIX. Numerical Integration of Bivariate Functions over a Non Rectangular Area by Using Fluctuationlessness Theorem

Baykara N. A., GÜRVİT E., Demiralp M.

2nd WSEAS International Conference on Multivariate Analysis and Its Application in Science and Engineering, İstanbul, Turkey, 30 May - 01 June 2009, pp.81-82

# XX. Evaluation of Multivariate Integrals via Fluctuationlessness Theorem and Taylor's Remainder GÜRVİT E., Baykara N. A., Demiralp M.

International Conference on Computational Methods in Science and Engineering, Hersonissos, Greece, 25 - 30 September 2008, vol.1148, pp.128-129

### XXI. A Hybridized Finite Taylor Formula by Fluctuation Free Remainder Term for a Multivariable

## **Function Approximation**

Baykara N. A., GÜRVİT E., Demiralp M.

International Conference on Computational Methods in Science and Engineering, Hersonissos, Greece, 25 - 30 September 2008, vol.1148, pp.21-22

# XXII. A Hybridized Finite Taylor Formula by Fluctuation Free Remainder Term for Univariate Function Approximation

Baykara N. A., GÜRVİT E., Demiralp M.

International Conference on Numerical Analysis and Applied Mathematics, Psalidi, Greece, 16 - 20 September 2008, vol.1048, pp.87-89

## XXIII. Evaluation of Univariate Integrals via Fluctuationlessness Theorem

GÜRVİT E., Baykara N. A., Demiralp M.

International Conference on Numerical Analysis and Applied Mathematics, Psalidi, Greece, 16 - 20 September 2008, vol.1048, pp.239-241

## **Metrics**

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