Bernoulli Polynomials, Fourier Series and Zeta Numbers
Fourier series for Bernoulli polynomials are used to obtain information about values of the Riemann zeta function for integer arguments greater than one. If the argument is even we recover the well-known exact values, if the argument is odd we find integral representations and rapidly convergent series.

General information
State: Published
Organisations: Department of Applied Mathematics and Computer Science
Authors: Scheufens, E. E. (Intern)
Pages: 65-76
Publication date: 2013
Main Research Area: Technical/natural sciences

Publication information
Volume: 88
Issue number: 1
ISSN (Print): 1311-8080
Ratings:
BFI (2018): BFI-level 1
BFI (2017): BFI-level 1
BFI (2016): BFI-level 1
Scopus rating (2016): SJR 0.253 SNIP 0.388 CiteScore 0.23
BFI (2015): BFI-level 1
Scopus rating (2015): SJR 0.299 SNIP 0.555 CiteScore 0.28
BFI (2014): BFI-level 1
Scopus rating (2014): SJR 0.321 SNIP 0.644 CiteScore 0.4
BFI (2013): BFI-level 1
Scopus rating (2013): SJR 0.256 SNIP 0.614 CiteScore 0.28
ISI indexed (2013): ISI indexed no
BFI (2012): BFI-level 1
Scopus rating (2012): SJR 0.202 SNIP 0.367 CiteScore 0.19
ISI indexed (2012): ISI indexed no
BFI (2011): BFI-level 1
Euler Polynomials, Fourier Series and Zeta Numbers

Fourier series for Euler polynomials is used to obtain information about values of the Riemann zeta function for integer arguments greater than one. If the argument is even we recover the well-known exact values, if the argument is odd we find integral representations and rapidly convergent series.

General information

State: Published
Organisations: Department of Applied Mathematics and Computer Science
Authors: Scheufens, E. E. (Intern)
Pages: 37-48
Publication date: 2012
Main Research Area: Technical/natural sciences

Publication information

Volume: 78
Issue number: 1
ISSN (Print): 1311-8080
Ratings:
BFI (2018): BFI-level 1
BFI (2017): BFI-level 1
BFI (2016): BFI-level 1
Scopus rating (2016): SJR 0.253 SNIP 0.388 CiteScore 0.23
BFI (2015): BFI-level 1
Scopus rating (2015): SJR 0.299 SNIP 0.555 CiteScore 0.28
BFI (2014): BFI-level 1
Scopus rating (2014): SJR 0.321 SNIP 0.644 CiteScore 0.4
BFI (2013): BFI-level 1
Scopus rating (2013): SJR 0.256 SNIP 0.614 CiteScore 0.28
ISI indexed (2013): ISI indexed no
BFI (2012): BFI-level 1
Scopus rating (2012): SJR 0.202 SNIP 0.367 CiteScore 0.19
ISI indexed (2012): ISI indexed no
BFI (2011): BFI-level 1
Scopus rating (2011): SJR 0.159 SNIP 0.173 CiteScore 0.12
ISI indexed (2011): ISI indexed no
BFI (2010): BFI-level 1
Scopus rating (2010): SJR 0.159 SNIP 0.11
BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Web of Science (2006): Indexed yes
Original language: English

Euler polynomials, Fourier series, Zeta numbers, Integral representations, Rapidly convergent series

Links:
From Fourier Series to Rapidly Convergent Series for Zeta(3).
The article presents a mathematical study which investigates the exact values of the Riemann zeta (ζ) function. It states that exact values can be determined from Fourier series for periodic versions of even power functions. It notes that using power series for logarithmic functions on this such series, a rapidly convergent series for ζ (3) is obtained.

Summations- og intergralformler for zeta(3) og beslægtede konstanter.

General information
State: Published
Organisations: Department of Mathematics
Authors: Scheufens, E. E. (Intern)
Pages: 41-49
Publication date: 2003
Main Research Area: Technical/natural sciences

Publication information
Journal: Normat
Volume: 51
Issue number: 2
ISSN (Print): 0801-3500
Ratings:
BFI (2018): BFI-level 1
BFI (2017): BFI-level 1
BFI (2016): BFI-level 1
BFI (2015): BFI-level 1
BFI (2014): BFI-level 1
BFI (2013): BFI-level 1
3D-pris

Department of Mathematics
Period: 09/05/2003 → 31/12/2004
Number of participants: 1
Project participant: Scheufens, Ernst E (Intern)

Financing sources
Source: Uddannelse. Statslige. Andre statslige
Name of research programme: Uddannelse. Statslige. Andre statslige
Amount: 25,000.00 Danish Kroner