

数理解析研究所講究録 1824

RIMS 共同研究

シュワルツ微分とその応用について

京都大学数理解析研究所

2013年2月

RIMS Kôkyûroku 1824

On Schwarzian Derivatives and Its Applications

May 23 ~25, 2012

edited by Shigeyoshi Owa

February, 2013

Research Institute for Mathematical Sciences

Kyoto University, Kyoto, Japan

This is a report of research done at the Research Institute for Mathematical Sciences, Kyoto University. The papers contained herein are in final form and will not be submitted for publication elsewhere.

シュワルツ微分とその応用について
On Schwarzian Derivatives and Its Applications
RIMS 共同研究報告集

2012年5月23日～5月25日

研究代表者 尾和 重義 (Shigeyoshi Owa)
副代表者 早味 俊夫 (Toshio Hayami)
" 黒木 和雄 (Kazuo Kuroki)

目 次

1.	Coefficients for certain analytic functions related to arguments of $f'(z)$ -----	1
	近畿大・理工 (Kinki U.)	早味 俊夫 (Toshio Hayami)
	"	黒木 和雄 (Kazuo Kuroki)
	"	白石 将 (Hitoshi Shiraishi)
	"	尾和 重義 (Shigeyoshi Owa)
2.	On the univalence conditions for certain class of analytic functions -----	8
	近畿大・理工 (Kinki U.)	黒木 和雄 (Kazuo Kuroki)
	"	尾和 重義 (Shigeyoshi Owa)
3.	New Family of Integral Operators of Meromorphic Functions -----	14
	U. Kebangsaan Malaysia	Aabed Mohammed
	"	Maslina Darus
4.	On N-Fractional Calculus of the Function $((z-b)^2 - c)^{-4}$ -----	21
	関西医大 (Kansai Medical U.)	都田 艶子 (Tsuyako Miyakoda)
5.	Solutions to Some Homogeneous Special Ordinary Differential Equation by Means of N-Fractional Calculus Operator -----	31
	デカルト出版 (Descartes Press Co.)	西本 勝之 (Katsuyuki Nishimoto)
6.	The Solutions to The Radial Schrödinger Equation of The Hydrogen Atom by Means of N-Fractional Calculus Operator -----	51
	デカルト出版 (Descartes Press Co.)	西本 勝之 (Katsuyuki Nishimoto)
7.	An extreme function for a certain class of analytic functions -----	68
	摂南大・理工 (Setsunan U.)	西脇 純一 (Junichi Nishiwaki)
	近畿大・理工 (Kinki U.)	尾和 重義 (Shigeyoshi Owa)

8 .	Extension theorems concerned with results by Ponnusamy and Karunakaran -----	74
	群馬大 (Gunma U.)	布川 護 (Mamoru Nunokawa)
	近畿大・理工 (Kinki U.)	黒木 和雄 (Kazuo Kuroki)
	Rzeszów U. Tech.	Janusz Sokól
	近畿大・理工 (Kinki U.)	尾和 重義 (Shigeyoshi Owa)
9 .	ON THE REPRESENTATION AND THE RESIDUE OF CONCAVE FUNCTIONS ---	82
	東北大・情報科学 (Tohoku U.)	大野 林太郎 (Rintaro Ohno)
1 0 .	Geometric properties of certain meromorphic functions -----	86
	群馬工業高専(Gunma Nat. Coll. Tech.)	斎藤 斉 (Hitoshi Saitoh)
1 1 .	Strongly starlikeness criteria for certain analytic functions -----	91
	近畿大・理工 (Kinki U.)	下田 穰 (Yutaka Shimoda)
	”	尾和 重義 (Shigeyoshi Owa)
1 2 .	An extension of Nunokawa lemma -----	96
	近畿大・理工 (Kinki U.)	白石 将 (Hitoshi Shiraishi)
1 3 .	ON THE ORDER OF STRONGLY CLOSE-TO-CONVEXITY OF STRONGLY CONVEX FUNCTIONS -----	100
	Rzeszów U. Tech.	Janusz Sokól
	群馬大 (Gunma U.)	布川 護 (Mamoru Nunokawa)
1 4 .	Radii of Starlikeness and Convexity for analytic functions with bounded derivative --	107
	芝浦工大 (Shibaura Inst. of Tech.)	山川 陸夫 (Rikuo Yamakawa)