2rd International Conference on Stochastic Dynamics and Statistical Application (2rd SDSA 2023)

3-4, June, 2023

Program Book

Organized institutions: Xidian University

University of Belgrade

University of Maribor

4. Technical Program (VooV Meeting ID: 790 902 361)

There is six hours' time difference, GMT 14:00=CET 8:00 am

Day 1, June 3

Time	Start	End	Activities	Presenter	Chairman
Day 1 June 3	14:00	14:20	Opening Ceremony	Prof. Shiliang Wu Prof. Jimin Ye Prof. Natasa Trisovic	Wei Li
	14:20	14:50	Keynote Talk	Shengxi Zhou	Dongmei Huang
	14:50	15:20	Keynote Talk	Zhong Tang	
	15:20	15:50	Keynote Talk	Morosavljević Ivan	Shengxi Zhou
	15:50	16:20	Keynote Talk	Zoran Pucanović	
	16:20	16:50	Keynote Talk	Valentina Golubovic-Bugarski	Guidong Yang
	16:50	17:20	Keynote Talk	Yongfeng Guo	
	17:20	17:50	Keynote Talk	Natasa Trisovic	Ruihong Li
	17:50	18:05	Keynote Talk	Jiale Han	

Title: A NOTE ON MATRICES INVOLVING THE CHEBYSHEV POLYNOMIALS

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Abstract: In this talk, we establish a connection between some classical topics in applied mathematics - circulant matrices and the Chebyshev polynomials. First, we define circulant matrices whose entries are the Chebyshev polynomials of the first or second kind and examine their basic properties. Then we determine the bounds of the norms of such matrices. It turns out that the obtained results can be seen as the unification and generalization of many previously obtained results on circulant matrices involving the generalized Horadam numbers. We point out one direction of applications, but it is clear that there are many possibilities. With appropriate modifications, these results can be applied in different areas, such as - statistics, data approximation, interpolation, engineering, economics, signal and image processing, numerical analysis, physics and error correcting code theory, to name but a few.