



جامعة فاروس

Publications Template

#	Research Title	Field	Abstract	Year of Publicatio Publishing	n	Publishing Link "URL"
1	A computational method for solving a class of non-linear singularly perturbed Volterra Integro-differential boundary-value problems		In this paper, a computational method is presented for solving a class of singularly perturbed Volterra integro-di§erential boundary-value problems with a boundary layer at one end. The implemented technique consists of solving two problems which are a reduced problem and a boundary layer correction problem. The Padeí approximation technique is used to satisfy the conditions at inÖnity. Theoretical	2013	<u>http://www.sci</u>	ik.org/index.php/jmcs/article/viewFile/60/295
مستوى سرية الوثيقة: استخدام داخلى Page 1 of 7 Rev. (1) Date (13-9-2018) Document Security Level = Internal Use		مستو nal Use	نىودى تودى	Doc. No. (PUA-IT-P01-F07) Issue no.(1) Date (13-9-2018)		







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		and numerical		
		results are		
-		presented.		
		We consider a		
		delayed SIR		
		epidemic model in		
		which the		
		susceptibles are		
		assumed to satisfy		
		the logistic equation		
		and the incidence		
		term is of saturated		
		form with the		
		susceptible. We	2013	
	Qualitative Analysis of Delayed SIR Epidemic Model with a Saturated Incidence Rate	investigate the		
		qualitative		
2		behaviour of the		https://doi.org/10.1155/2012/408637
		model and find the		
		conditions that		
		guarantee the		
		asymptotic stability		
		of corresponding		
		steady states. we		
		conditions in the time lag in which the DDE model is stable Honf		
		bifurcation analysis		
		is also addressed		
		Numerical		
	دام داخلي Page 2 of 7	مستوى سرية الوثيقة: استخ	amplataz) wi	Doc. No. (PUA-IT-P01-F07)
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			simulations are provided in order to illustrate the theoretical results and gain further insight into the behaviour of this system.			
3	SIR Model of Sw Influenza Epidem Abu Dhabi: Estima of Vaccination Requirement	ine ic in ition	Mathematical models could be used to analyse dynamics of epidemic infection and create better insights into the measures that could prevent future epidemics. In this paper, we developed a basic SIR model which was fit to data from recent influenza A (H1N1) epidemic in Abu Dhabi. We estimated values fo the threshold reproductive number R0 which prevent outbreak o swine influence	s 1 2013 n r f		
Rev. (2)	Page 3 of 7 Date (30-11-2019)	ىتخدام داخلي Document Sec	مستوى سريـه الوتيفه: الا urity Level = Internal Use	نموذجV Template-	Doc. No. (PUA–IT–P01–F07) Issue no.(2) Date (30-11-2019)	

P	PHAROS UNIVERSIT ALEXANDRIA	Y Contensity to March)	جامعة فاروس الاسكندرية
	1		ية فاروس ا	
		infection. Results		
		vaccination of 59%		
		of population could		
		achieve	-	
		'herd immunity'		
		and prevent spread		
		of the disease. The		
		results could guide		
		future public health		
		measures in the		
		Emirate of Abu		
1	1	Dhabi.		
<u>nu</u>	<u>pic/publication/242160575</u>	<u>SIP Model of Swine Influ</u>	onzo Enidomio in	Aby Dhahi Estimation of Vaccination Paguirament/links/5006f6/006f
	73be7bb19a/SIR-Model-o	_SIK_Woder_or_Swille_IIIIu f-Swine-Influenza-Enidemic-i	n-Abu-Dhabi-Esti	mation_of_Vaccination_Requirement pdf
			II Hou Dhuor List	mation of vaccination Requirement.pur
	Delayed SIR Model with			
4	saturated incidence		2015	
	rate. NUMDIFF-14			
		This paper is		
		devoted to both		
	An Efficient Numerical	numerical study of		
	Algorithm for Solving	boundary value		
5	Fractional Higher-	problems for	2015	https://doi.org/10.1155/2015/616438
_	Order Nonlinear	higher-order		
	Fountions	nonlinear fractional		
	Equations	integrodifferential		
		equations. Existence	e	
		and uniqueness		
	دام داخلي Page 4 of 7	مستوى سرية الوثيقة: استخ	V/Tompletor))	Doc. No. (PUA-IT-P01-F07)
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I	PHAROS UNIVERSIT ALEXANDRIA	Y	. 1636	جامعة فاروس الاسكندرية			
		results for the considered problem are provided and proved. The numerical method of solution for the problem is based on a conjugate collocation and spline approach combined with shooting method. Some numerical examples are discussed to demonstrate the efficiency and the accuracy of the proposed algorithm.	لغة قاروس				
6	Data Assimilation of Doppler Radar Winds for Numerical Weather Prediction						
7	Dynamics of coronavirus infection in human	Middle East Respiratory Syndrome Coronavirus (MERS-CorV), was discovered in humans with lower respiratory tract	2018	https://doi.org/10.1063/1.5045415			
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			اروس	جامعة ف	
		infection,	causes a		
		range of ill	nesses in		
		humans, f	rom the		
		common co	old to the		
		Severe A	Acute		
		Respira	atory		
		Syndrome	(SARS).		
		Scientist	s give		
		much atte	ntion to		
		study the	CorV		
		infection	among		
		groups	and		
		travelers.	In this		
		paper, we	utilize a		
		mathematic	al model		
		governe	d by a		
		system	n of		
		differe	ntial		
		equations	, which		
		incorporat	e target		
		cell limita	tion and		
		the innate i	nterferon		
		respon	nse,		
		investiga	ate the		
		innate and	adaptive		
		immune re	sponses		
		to primar	y CorV		
		infectior	in an		
		individual.	We also		
		investiga	te the		
		sensitivity	analysis		
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PHAROS UNIVERSII Y ALEXANDRIA	There is the interview of the interview	جامعة فاروس الاسكندرية	
	of the model to determine the most sensitive parameters and informative subintervals. This study may promote clearance of virus and host recovery from infection.		
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