

Table of contents

Preface	1
<i>Nour Eddine Alaa</i>	
Non-domination sorting genetic algorithm II for optimization of Priestley-Taylor transpiration parameters	3
<i>Abdelhaq Mowida and Nour Eddine Alaa</i>	
Periodic solution for some parabolic degenerate equation with critical growth with respect to the gradient	13
<i>Nour Eddine Alaa and Fatima Aqel</i>	
Mathematical analysis of a reaction-diffusion system modeling the phenomena of crevice corrosion in one dimension space with measure initial data	27
<i>Imane El Malki, Nour Eddine Alaa, and Fatima Aqel</i>	
Continuous spectrum of a fourth order eigenvalue problem with variable exponent under Neumann boundary conditions	42
<i>Khalil Ben Haddouch, Abdeslam Ayoujil, Zakaria El Allali, and Najib Tsouli</i>	
Texture synthesis by reaction diffusion process	56
<i>Mariam Zirhem and Nour Eddine Alaa</i>	
Mathematical analysis of a reaction diffusion model for image restoration	70
<i>Salim Mesbahi and Nour Eddine Alaa</i>	
Global existence of weak solutions for parabolic triangular reaction diffusion systems applied to a climate model	80
<i>Walid Bouarifi, Nour Eddine Alaa, and Salim Mesbahi</i>	
Nonresonance conditions for a p-biharmonic operator with weight	98
<i>Khalil Ben Haddouch, Zakaria El Allali, El Miloud Hssini, and Najib Tsouli</i>	
Blind source separation using measure on copulas	104
<i>Abdelghani Ghazdali and Abdelilah Hakim</i>	
Homogenization of parabolic nonlinear coupled problem in heat exchange	117
<i>Abdelkrim Chakib, Aissam Hadri, Abdeljalil Nachaoui, and Mourad Nachaoui</i>	
Robust multi-frame super-resolution with non-parametric deformations using diffusion registration	129
<i>Amine Laghrib, Abdelilah Hakim, Said Raghay, and Mohammed El-Rhabi</i>	
Hermite-Padé approximation approach to exothermic explosions with heat loss	140
<i>Houda Biyadi, Mustapha Er-Riani, and Khaled Chetehouna</i>	
Orthogonal projection algorithm for first and second order total variation denoising	148
<i>Idriss El Mourabit, Mohammed El-Rhabi, and Abdelilah Hakim</i>	
Iterative method for computing a Schur form of symplectic matrix	158
<i>A. Mesbahi, A.H. Bentbib, A. Kanber and F. Ellagoune</i>	

Applications of fractals in medicine <i>Kaoutar Lamrini Uahabi and Mohamed Atounti</i>	167
A fusion of remote sensing images segmentation based on Markov random fields and fuzzy c-means models <i>Mohamed Bou-Imajane and Mohamed Sbihi</i>	175
Numerical simulation of turbulence effects on the spectral matrix elements <i>M. Sidki and M. Bennouna</i>	186
On a numerical approximation of a highly nonlinear parabolic inverse problem in hydrology <i>A. Chakib, M. Johri, A. Nachaoui, and M. Nachaoui</i>	192
Image retrieval using global descriptors and multiple clustering in Nash game <i>O. Bencharef, B. Jarmouni, N. Moussaid, and A. Souissi</i>	202
A domain decomposition method for boundary element approximations of the elasticity equations <i>Abdellatif Ellabib and Abdeljalil Nachaoui</i>	211
On the identification of discontinuous matrix diffusion in elliptic equation <i>Abdellatif Ellabib and Youssef Ouakrim</i>	226
Stabilization of variable coefficients Euler-Bernoulli beam equation with a tip mass controlled by combined feedback forces <i>My Driss Aouragh and Abderrahman El Boukili</i>	238