

Day 1: 8th June 2017

Session 1: Registration, Inauguration, and Invited Talks

Venue : LH 101

Chair Person: Jean-Pierre Raymond

9:00 AM – 9:45AM

Registration & Inauguration

Time	Speaker	Title
9.45 AM – 10.25 AM	John Whiteman	Acoustic location of coronary artery disease: computational and experimental aspects

10:25 AM – 10:45 AM

Tea Break

Session 2 : Invited Talks

Venue : LH 101

Chair Person: Andreas Veerer

Time	Speaker	Title
10.45 AM – 11.25 AM	Phoolan Prasad	Formulation of sonic boom as a one parameter family of Cauchy problems through Kinematical Conservation Laws
11.30 AM – 12.10 PM	Susanne Brenner	Finite element methods for fourth order elliptic variational inequalities
12.15 PM – 12.55 PM	Mythily Ramaswamy	Stabilization of a heat conducting fluid model

1:00 PM – 2:00 PM

Lunch

Session 3 : Invited Talks

Venue : LH 101

Chair Person: Mythily Ramaswamy

Time	Speaker	Title
2:00 PM – 2:40 PM	Li-yeng Sung	Hodge decomposition methods for electromagnetics
2.40 PM – 3.05 PM	Sheetal Dharmatti	Stabilization of viscoelastic fluids with finite dimensional controllers
3:05 PM – 3:30 PM	Nattapol Ploymaklam	An energy-preserving local discontinuous Galerkin method for the Burgers–Poisson equation

3:30 PM – 3:50 PM

Tea Break

Session 4: Contributed Talks

Time	Parallel Session 1 Venue : LH 101 Chair Person: Asha Kisan Dond	Parallel Session 2 Venue: LT 104 Chair Person: Sheetal Dharmatti	Parallel Session 3 Venue: LT 105 Chair Person: Ratikanta Behera
3:50 – 4:05	Gaddam Sharat Inhomogeneous Dirichlet boundary condition in the a posteriori error control of the obstacle problem	Pallavi Verma Soliton solutions for modified KdV Burger's equation with time dependent coefficients via $\tan(\phi(\xi))$ -expansion method	Neeraj Kumar Tripathi Comparative study of Haar wavelets with Legendre wavelets for fractional order differential equations
4:05 – 4:20	Papri Roy Weak Galerkin finite element methods for elliptic and parabolic interface problems	Ankur Kanaujiya Pricing European passport option using three time level finite difference scheme	Harinakshi Karkera A uniform Haar wavelet based numerical method for the solution of the Falkner-Skan equation
4:20 – 4:35	Sanath Keshav Mixed virtual element methods for the Rosenau equation	Mahaveer Prasad Yadav Analytic solution of space time fractional advection dispersion equation with retardation for contaminant transport in porous media	Vijay Kumar Shukla Study of chyme movement in small intestine: A mathematical model
4:35 – 5:00	P. Dhanumjaya Discontinuous Galerkin finite element methods for the two dimensional Rosenau equation	Ashish Awasthi Differential quadrature based numerical schemes for Fisher equation	Madan Mohan Panja Boundary condition adapted multiscale representation of derivatives in Daubechies wavelet basis for $L_2[0, 1]$ and their applications

Session 5: Contributed Talks

Time	Parallel Session 1 Venue : LH 101 Chair Person: P. Dhanumjaya	Parallel Session 2 Venue: LT 104 Chair Person: Ashish Awasthi	Parallel Session 3 Venue: LT 105 Chair Person: Madan Mohan Panja
5:05 – 5:20	Sanjib Kumar Acharya A generalized nonconforming finite element method for parabolic problems	Gayatri Pany A study on mixed variational like inequalities with convexificator approach and applications	Sowndarrajan P. T. Analysis of optimal control problem for tumor drug delivery mathematical model
5:20 – 5:35	Papri Majumder Convergence analysis of finite element method for a parabolic obstacle problem	Jitendrakumar G. Panchal Existence of the mild solutions for an impulsive fractional differential inclusions in Banach space with sectorial operator	Ruchi Sandilya A mixed and discontinuous finite volume approximation of optimal control problem governed by two-phase incompressible immiscible flow in porous media
5:35– 6:00	Lokpati Tripathi A finite element method for pricing American style options	Falguni S. Acharya Controllability of neutral functional evolution equations with time varying delays	Anil Kumar Pundir Optimal control of the velocity term in plate equation with multiplicative control

Day 2: 9th June 2017

Session 1 : : Invited Talks

Venue : LH 101

Chair Person: Susanne Brenner

Time	Speaker	Title
9:00 AM – 9:40 AM	S. Kesavan	From Poincare to Saint Venant: via Donati, Lions and Korn
9.45 AM – 10.25 AM	Carsten Carstensen	Adaptive least-squares finite element methods

10:25 AM – 10:45 AM Tea Break + Poster Presentation

Session 2 : Invited Talks

Venue : LH 101

Chair Person: Li-yeng Sung

Time	Speaker	Title
10.45 AM – 11.25 AM	Jean-Pierre Raymond	Local stabilization of 2D and 3D fluid-structure models
11.30 AM – 12.10 PM	Rajen Sinha	a posteriori error analysis of linear parabolic interface problems: a reconstruction approach
12.15 PM – 12.55 PM	M. Vanninathan	Dispersive approximation in finely periodic media

1:00 PM – 2:00 PM Lunch

Session 3 : Invited Talks

Venue : LH 101

Chair Person: A. S. Vasudeva Murthy

Time	Speaker	Title
2:00 PM – 2:40 PM	Bishnu Lamichhane	Finite element computations using locally supported biorthogonal systems
2.45 PM – 3.25 PM	K. R. Arun	A well-balanced and asymptotic preserving IMEX Runge -Kutta scheme for the Saint-Venant system

3:30 PM – 3:50 PM Tea Break + Poster Presentation

Session 4: Contributed Talks

Time	Parallel Session 1 Venue : LH 101 Chair Person: Anil Kumar Pundir	Parallel Session 2 Venue: LT 104 Chair Person: Sandeep Malhotra	Parallel Session 3 Venue: LT 105 Chair Person: K. R. Arun
3:50 – 4:05	Balaje K. Virtual element method for Benjamin-Bona-Mahony (BBM) equation	Neetu Singh Quarter of circular plate with exponential thickness variation	Saurav Samantaray A second order semi- implicit scheme for the linear wave equation system, accurate at the low Mach number limit
4:05 – 4:20	Gurusamy A. Discontinuous Galerkin methods for Keller-Segel chemotaxis system with chemotaxis sensitivity and cross-diffusion	Santosh Kumar Bhal Orthogonal spline collocation methods for the two dimensional parabolic interface problem	Deepti Kaur High order two-level implicit difference formulas for 2D fourth- order parabolic partial differential equations
4:20 – 4:35	Nisha Sharma An expanded mixed FEM for a nonlinear parabolic problem	Atul Kumar Tiwari Invariant solutions of Boiti- Leon-Manna-Pempinelli equation	Rajni Arora Cubic B-spline collocation method with Numerov type discretization for the solution of one dimensional hyperbolic equations
4:35 – 5:00	Ajit Patel Mortar finite element methods for hyperbolic problems	Ratikanta Behera Solution of multilinear systems using the Moore-Penrose inverse of tensors	Navnit Jha A high-order compact discretization for three-dimensional convection- diffusion problems on a quasi- variable mesh network

Session 5: Contributed Talks

Time	Parallel Session 1 Venue : LH 101 Chair Person: Falguni S. Acharya	Parallel Session 2 Venue: LT 104 Chair Person: Ajit Patel	Parallel Session 3 Venue: LT 105 Chair Person: Navnit Jha
5:05– 5:20	Anil Negi Mathematical model to analyze the dynamic response due to load moving in irregular initially stressed heterogenous granite rock medium	Jyoti Verma Fractional order generalized thermoelastic response in a half space due to a periodically varying heat source	Amandeep Kaur Normal wave interaction with finite floating rigid dock in presence of trapezoidal trench
5:20– 5:35	Bhagat Singh Non-uniform grid compact finite difference scheme for mildly non-linear three dimensional singular elliptic equations	Latha D. N. Double diffusive mixed convection flow from a vertical exponentially stretching surface in presence of the viscous dissipation	Snehamoy Pramanik Effect of viscosity and anisotropy on propagation of Rayleigh type wave

Session 6: Special Talk

Venue : LH 101

Chair Person: A. K. Nandakumaran

Time	Speaker	Title
5:40 PM – 6:20 PM	Amiya Kumar Pani	A tiny journey into computational PDEs

Felicitations followed by dinner

Day 3: 10th June 2017

Session 1 Invited Talks

Venue : LH 101

Chair Person: Rajen Sinha

Time	Speaker	Title
9:00 AM – 9:40 AM	G.D. Veerappa Gowda	Applications of Hamilton-Jacobi equations in shape from shading
9:45 AM – 10:25 AM	Andreas Veerer	Quasi-optimality in parabolic spatial semi-discretizations

10:25 AM – 10:45 AM Tea Break

Session 2 : Invited Talks

Venue : LH 101

Chair Person: Carsten Carstensen

Time	Speaker	Title
10:45 AM – 11:25 AM	A. S. Vasudeva Murthy	On the wave equations of Kirchhoff–Narasimha and Carrier
11:30 AM – 12:10 PM	Thirupathi Gudi	Local best approximation by finite element spaces
12:15 PM – 12:55 PM	R. K. Mohanty	Numerics of nonlinear biharmonic problems of first kind: application to Navier-Stokes equations of motion

1:00 PM – 2:00 PM Lunch

Session 3 : Invited Talks

Venue : LH 101

Chair Person: G.D. Veerappa Gowda

Time	Speaker	Title
2:00 PM – 2:40 PM	Kapil Sharma	Parameter uniform numerical schemes for singularly perturbed differential difference equations
2:45 PM – 3:25 PM	Morrakot Khebchareon	Alternating direction implicit finite element Galerkin methods for cubic Schrodinger equation

3:30 PM – 3:50 PM Tea Break

Session 4: Contributed Talks

Time	Parallel Session 1 Venue : LH 101 Chair Person: Sarvesh Kumar	Parallel Session 2 Venue: LT 104 Chair Person: Lokpati Tripathi	Parallel Session 3 Venue: LT 105 Chair Person: Sudipto Chowdhury
3:50 – 4:05	Sudeep Kundu Finite element approximation to global stabilization of BBMB type equation by nonlinear boundary feedback control	Nafisabanu Kumbarwadi Double diffusive mixed convection flow with exponentially decreasing main stream velocity	Sachin Sharma A new two-level implicit scheme based on cubic spline approximations for the system of 1D quasi-linear parabolic partial differential equations
4:05 – 4:20	Ambit K. Pany Backward Euler schemes for the Kelvin-Voigt viscoelastic fluid flow model	Shashikant Numerical investigation of unsteady double diffusive MHD mixed convection from an exponentially stretching sheet	Neelesh Kumar Third order nonuniform mesh compact finite difference method adopted for two-dimensional elliptic equations
4:20 – 4:35	Debasish Pradhan Domain decomposition and mixed finite element methods for elliptic problems	Shashi Kant Coupled thermoelastic interactions with memory dependent derivatives under an exact heat conduction with a delay	Gunjan Khurana A new high accuracy off step cubic spline method for 1-D quasi-linear hyperbolic equations
4:35 – 5:00	Asha Kisan Dond Patchwise local projection stabilization for convection-diffusion problem	Sandeep Malhotra Transient simulation of vapor liquid two phase flow inside single tube heat exchanger using finite difference method	L. Jones Tarcus Doss Unconditionally stable positivity preserving upwind scheme for multi- species transport with first order reaction network

Session 5: Contributed Talks

Time	Parallel Session 1 Venue : LH 101 Chair Person: Deepjyoti Goswami	Parallel Session 2 Venue: LT 104 Chair Person: Debasish Pradhan	Parallel Session 3 Venue: LT 105 Chair Person: L. Jones Tarcus Doss
5:05 – 5:20	Digvijay Tanwar Some exact solutions of breaking soliton system	Shalini Saha Propagation of Rayleigh-type wave in an initially stressed heterogeneous transversely isotropic dissipative media	Sudipto Chowdhury C0 interior penalty method for a fourth order Dirichlet boundary control problem
5:20 – 5:35	Sneha Jaiswal MHD flows of two-immiscible fluids through the channels filled with highly porous medium	Anusree Ray Influence of corrugated interface and poroelasticity on Rayleigh-type wave propagation	Pankaj Mishra An orthogonal spline collocation Crank-Nicolson method for 1D parabolic singularly perturbed reaction-diffusion problems
5:35– 5:50	Abhishek Kumar Singh A numerical solution for a Stefan problem with variable latent heat	Mriganka Shekhar Chaki Propagation of Love-type wave in an imperfectly bonded piezoelectric layer with irregularity	Ajay Kumar Numerical solution of drug release devices by second kind Chebyshev wavelets