

Synasc 2005 - Preliminary program

SYNASC 2005

```
/* Style Definitions */
table.MsoNormalTable
{mso-style-name:"Table Normal";
mso-tstyle-rowband-size:0;
mso-tstyle-colband-size:0;
mso-style-noshow:yes;
mso-style-parent:"";
mso-padding-alt:0cm 5.4pt 0cm 5.4pt;
mso-para-margin:0cm;
mso-para-margin-bottom:.0001pt;
mso-pagination:widow-orphan;
font-size:10.0pt;
font-family:"Times New Roman";
mso-ansi-language:#0400;
mso-fareast-language:#0400;
mso-bidi-language:#0400;}
table.MsoTableGrid
{mso-style-name:"Table Grid";
mso-tstyle-rowband-size:0;
mso-tstyle-colband-size:0;
border:solid windowtext 1.0pt;
mso-border-alt:solid windowtext .5pt;
mso-padding-alt:0cm 5.4pt 0cm 5.4pt;
mso-border-insideh:.5pt solid windowtext;
mso-border-insidev:.5pt solid windowtext;
mso-para-margin:0cm;
mso-para-margin-bottom:.0001pt;
mso-pagination:widow-orphan;
font-size:10.0pt;
font-family:"Times New Roman";
mso-ansi-language:#0400;
mso-fareast-language:#0400;
mso-bidi-language:#0400;}
```

Saturday | Sunday | Monday | Tuesday | Wednesday | Thursday

Saturday, September 24

16:00-20:00

Registration

Sunday, September 25

8:00-9:30

Registration

9:30-9:50

Opening

9:50-10:40

Invited

talk . Chair: Dan Dumitrescu

Ajjith

Abraham - Natural

Computation for Business Intelligence from Web Usage Mining

10:40-11:00

Coffee break

11:00-12:20

Workshop NCA (I)
Chair: Ajith Abraham

11:00-11:20
11:20-11:40

11:40-12:00
12:00-12:20

S. Banarjee,
C. Grosan, A. Abraham - Crowd behavior modelling using emotional ants
M. Nicoara,
C. Grosan, A. Abraham - Geometrical place problems using particle swarm and evolutionary algorithms
D. Dumitrescu,
C.M. Pinteana - Inner-update system for traveling salesman problem
V. Ramos, C. Fernandes, A.C. Rosa
- On ants, bacteria and dynamic environments

12:20-14:00

Lunch break

14:00-15:20

SYNASC: Symbolic and numeric computation
Chair: Stefan Maruster

14:00-14:20
14:20-14:40

14:40-15:00
15:00-15:20

M.Marin, T. Ida Rule-based
Programming with rho Log
K. Nabeshima
A Direct Product of Fields Approach
to Comprehensive Grobner * Bases over Finite Fields
A.Andreica, D. Stuparu, I. Mantu Symbolic Modelling
of Database Representations
Y. Feng,
Y.H. Li Checking RSC Criteria by
Interpolation Method

15:20-15:40

Coffee break

15:40-17:20

Workshop ACSys
Chair: Viorel Negru

15:40-16:00

16:00-16:20

16:20-16:40

16:40-17:00

17:00-17:20

D.M. Popovici,
R. Querrec, F. Harrouet,
C. Le Gal, L.D. Serbanati, S. Morvan
VirtualDive a VR-based Educational Virtual
Environment
C. Hritcu,
S. Buraga A
Reference Implementation of ADF (Agent Developing Framework): Semantic
Web-based Agent Communication
C. Badica,
M. Ganzha, M. Paprzycki
Mobile Agents in a Multi-Agent
E-Commerce System
I. Muscalagiu, H.Popa, M. Panoiu Determining the Number of Messages
Transmitted for the Temporary Links in the Case of ABT Family Techniques
A. Florea,
E. Kalisz - Embedding emotions in an artificial tutor

17:20-17:40

Coffee break

17:40-18:40

SYNASC: Symbolic modeling and software design
Chair: Tetsuo Ida

17:40-18:00

18:00-18:20

18:20-18:40

R. Wetzel,
R. Marinescu Archeology
of Code Duplication: Recovering Duplication Chains from Small Duplication Fragments
C. Badica,
M. Teodorescu, C. Spahiu, C. Fox, A. Badica
Integrating Role Activity Diagrams and Hybrid IDEF for Business Process
Modeling using MDA
X.L. Zhang, D.Y. Zhu A Connectivity Analysis Approach in
Geometric constraint solving

19:00-21:00

Welcome reception

Monday, September 26

9:00-9:50

Invited
talk. Chair: Gabriel Ciobanu
Gheorghe Paun - Membrane computing. Basic ideas, results,
applications

9:50-10:20

Coffee break

10:20-11:20

Workshop TAPS

(I)

Chair: Gheorghe

Paun

Workshop PN&WM (I)

Chair: Alexandru Cicortas

10:20-10:40

10:40-11:00

11:00-11:20

A. Alhazov,

R. Freund, A. Riscos-Nunez - One and Two Polarizations, Membrane Creation and Objects Complexity in P Systems

I. Ardelean

- Could

P Systems Model Energy-Sensing Behavior in Bacteria?

G. Bel

Enguix, D. Jimenez Lopez - Modelling Parallel Phenomena in Conversations with P Systems

F.L. Tiplea,

G. Macovei - Timed

Workflow Nets

F.L. Tiplea,

A. Tiplea - Instantiating

Nets and Their Applications to Workflow Nets

C. Vidrascu

- Modular Analysis of Concurrency in

Jumping Nets

11:20-11:40

Coffee break

11:40-12:40

Workshop TAPS (II)
Chair: Stefan Maruster

Workshop PN&WM
(II)
Chair: Ferucio biplea

11:40-12:00

12:00-12:20

12:20-12:40

F. Bernardini, F. Romero-Campero, M. Gheorghe, M. Perez-Jimenez, M. Margenstern, S. Verlan, N. Krasnogor -
On P Systems with Bounded Parallelism
L. Bianco,
V. Manca, S. Zorzan - Symbolic
Representations of Biological Oscillations
L. Fernandez, V.J. Martinez,
F. Arroyo, L.F. Mingo - A Hardware
Circuit for Selecting Active Rules in Transition P Systems

I. Camerzan,
T. Jucan, O. Prisecaru - Time
Workflow Nets

J. Zhong,
B. Song - Verification of Resource Constraints
for Concurrent Workflow

H. Motameni,
Azad, A. Movaghar, B.Kardel - Verifying
and Evaluating UML Activity Diagrams by Converting to CPN

12:40-14:30

Lunch break

14:30-15:45

Workshop TAPS (III)
Chair: Gabriel Ciobanu

Workshop PN&WM (III)
Chair: Cristian Vidrascu

14:30-14:55

14:50-15:20

15:20-15:45

R. Freund, M. Oswald- P Colonies Working in the Maximally
Parallel and in the Sequential Mode
P. Frisco, R. Gibson - A
Simulator and an Evolution Program for Conformon-P
Systems
O. Ibarra, S. Woodworth - On
Symport/ Antiport P
Systems with One or Two Symbols

J.-J. Huo,
Y.-N. Xia, C.-Y. Yuan, W.-L. Qu
- Workflow Management Modeling and
Simulation
J. Jiang,
X. Zhou, Y. Sun - Component-Level
Reduction Rules for Time Petri Nets Based on DTPN
H. Motameni, A. Movaghar, M. Mozafari - Evaluating
UML State Diagrams Using Colored Petri Net

15:45-16:10

Coffee break

16:10-17:10

Workshop NCA
(II)
Chair: Ajith Abraham

16:10-16:30

16:30-16:50

16:50-17:10

R.V. Florian

- A reinforcement learning algorithm
for spiking neural networks

E. Kaslik,

L. Braescu, St. Balint - On the controllability of the
continuous-time Hopfield-type neural networks

D. David, L. Diosan, D. Dumitrescu - A new computational model based on Ising machine: Ising model with
rays

17:10-17:30

Coffee break

17:30-18:30

Workshop NCA (III)

Chair: Dan Dumitrescu

17:30-17:50

17:50-18:10

18:10-18:30

E. Bautu,

A. Bautu, H. Luchian - Symbolic regression on noisy data with
genetic and gene expression programming

E. Bautu,

A. Bautu, H. Luchian - A GEP-based approach for solving Fredholm
first kind integral equations

S.C. Cheran,

G. Gargano, P. Cerello,

R. Belotti - Computer-aided
diagnosis

for lung CT using artificial life models

Tuesday, September 27

9:00-9:50

Invited

talk. Chair: Tetsuo Ida

Brigitte Trousse - Role of Knowledge/Annotations in

Complex KDD Processes.

Illustration
in Web Usage Mining

9:50-10:20

Coffee break

10:20-11:40

SYNASC: Data clustering & image processing Chair: Brigitte Trousse

10:20-10:40

10:40-11:00

11:00-11:20

11:20-11:40

G. Serban,

A. Campan A

New Core-based Method for Hierarchical Incremental Clustering

V. Patrascu

A Generalization of Gustafson-Kessel Algorithm Using a New Constraint Parameter

L. State, C. Cocianu, P. Vlamos, V. Stefanescu Using

the adapted Innovation Algorithm for Noise Reduction in Image Processing

L.Stanescu, D.D. Burdescu,C.Stoica Spahiu Using

R-Trees in Content-based Region Query with Spatial Bounds

11:40-12:00

Coffee break

12:00-13:15

Workshop TAPS (IV)

Chair: Gheorghe P un

12:00-12:25

12:25-12:50

12:50-13:15

M. Gutierrez-Naranjo, M. Perez-Jimenez, A. Riscos-Nunez,
F. Romero-Campero - Characterizing Tractability with Membrane Creation
D. Pescini, D. Besozzi, G. Mauri - Investigating
Local Evolutions in Dynamical Probabilistic P Systems
A. Profir,
E. Gutuleac, E. Boian - Simulation
of Continuous-time P Systems using Descriptive Rewriting Timed Petri Nets

13:15-21:00

Lunch + town tour +
conference dinner

Wednesday, September 28

9:00-9:50

Invited
talk. Chair:
Tudor Jebelean
Tetsuo Ida - Symbolic Computing Grid for Computational Origami

9:50-10:20

Coffee break

10:20-11:40

SYNASC: Scientific computing systems & user
interfaces
Chair: Tetsuo
Ida

10:20-10:40

10:40-11:00

11:00-11:20

11:20-11:40

L. Dragan,
S. M. Watt Performance Analysis of
Generics in Scientific Computing
V. Niculescu,
G.S. Moldovan Building an Object
Oriented Computational Algebra System Based on Design Patterns
Z. Lazar,A.
Fanea, V. Ciobotariu-Boer,
D. Petrascu, B.Parv COMODI: On the Graphical User Interface
M. Dragan
Using Excel as a Front-end for MLF

12:00-14:00

Lunch break

14:00-15:20

SYNASC: Data mining
Chair:
Daniela Zaharie

14:00-14:20

14:20-14:40

14:40-15:00

15:00-15:20

A.Bartkowiak, P. Lipinski
Some Remarks on Evaluation of Correlation Dimension for 5 stock data
C. Gyorodi,
R. Gyorodi, M. Pater, O.Boc, Z. David AFOPT
Algorithm for Multi-Level Databases
C. Gyorodi,
R. Gyorodi, M. Pater, O.Boc, Z. David Adaptive
AFOPT Algorithm
D. Pop, V. Negru, C. Jichici - A combinative method for decision tree
construction

15:20-15:40

Coffee break

15:40-17:20

Workshop CAVIS (I)
Chair: Dana Petcu

15:40-16:00

16:00-16:20

16:20-16:40

M. Carmen Ruiz, D. Cazorla, F. Cuartero, J.J.Pardo A
formal specification and performance evaluation in the purchase phase in the
SET protocol
L. Kovacs, T. Jebelean An
algorithm for automated generation of invariants for loops with conditionals
T. Jebelean,
L. Szakacs - Functional-based
synthesis of online systolic multipliers

16:40-17:00

Coffee break

17:00-18:00

Workshop CAVIS (II)
Chair: Tudor Jebelean

17:00-17:20

17:20-17:40

17:40-18:00

G. Ciobanu,
K.N. Sridhar Specifications and
verification of network protocols by process algebra
M. Danes, D. Lucanu, G. Ciobanu Specification of coordinated objects and
verification of their temporal properties
L. Capra Colored Petri Nets State-Space Reduction

via Symbolic Execution

18:00-18:20

Coffee break

18:20-19:20

Workshop NCA
(IV)
Chair: Vitorino Ramos

18:20-18:40
18:40-19:00
19:00-19:20

A. Gog,
D. Dumitrescu - A
model for parallel evolutionary search
R.I. Lung, D. Dumitrescu - A new
subpopulation model for multimodal optimization
D. Zaharie
- Density-based clustering with
crowding differential evolution

Thursday, September 29

9:00-10:20

SYNASC: Cryptography &
compression algorithms
Chair : Luminita State

9:00-9:20
9:20-9:40
9:40-10:00
10:00-10:20

B. Groza,
D. Petrica

Cryptanalysis of an Authentication Protocol
S.Iftene General
Secret Sharing Based on Determinants
A.Popovici, D. Popovici A
Generalization of the Cellular Automata Rule-30 Cryptoscheme
I.Popa Data
compression using surrounding contexts

10:20-10:40

Coffee break

10:40-12:20

SYNASC: Distributed and parallel computation
Chair: Tudor Jebelean

10:40-11:00

11:00-11:20
11:20-11:40
11:40-12:00

D.Petcu Adapting a Partitioning-based Heuristic
Load-balancing

Algorithm to Heterogeneous Computing Environments

H.A. Grebla,

C. Cenan Distributed

Database Replication A Game Theory

D. Onchis

Multiple 1D data parallel wavelet
transform

S. Sethupathy,

N. Park, M. Paprzycki Logic Restructuring for Delay Balancing in Wave-Pipelined Circuits:
an Integer Programming Approach

12:00-12:20

Closing

