

# Mathematical Modelling in Medicine

July 20th – August 28th 2009, Luminy, Marseille, France

C  
entre  
M  
athématique  
R  
cherche  
A  
vancée  
S  
calcul  
09  
scientifique

Student Seminar  
14:00 - Auditorium

*1<sup>st</sup> Week: 2-7 August*

Monday August 2<sup>nd</sup>

**Jean HOUOT**

Institut Elie Cartan Nancy

*Motion of rigid bodies in ideal fluid*

Tuesday August 3<sup>rd</sup>

**Gabriela RUSNÁKOVÁ**

Technische Universität Hamburg

*Numerical Modelling of non-Newtonian blood flow*

Wednesday August 4<sup>th</sup>

**Amélie RAMBAUD**

Institut Camille Jordan

*Multilayers Shallow Water Model*

Thursday August 5<sup>th</sup>

**Nicolae CINDEA**

Institut Elie Cartan Nancy

*A problem of moments. Application*

*to free-breathing cardiac MRI.*

Friday August 6<sup>th</sup>

**Cristina BARGO**

University of Philippines / Université Piere et Marie Curie

*Parareal Algorithm*

# Mathematical Modelling in Medicine

July 20th – August 28th 2009, Luminy, Marseille, France

C  
entre  
M  
athématique  
R  
cherche  
A  
vancée  
S  
calcul  
O  
scientifique  
09

Student Seminar  
Auditorium

*2<sup>nd</sup> Week: 10-14 August*

9h00 - Monday August 10<sup>th</sup>

**Cristina POCCI**

Università La Sapienza

*Perona-Malik type equations*

9h30 - Monday August 10<sup>th</sup>

**Alex LORZ**

University of Cambridge

*A Coupled Chemotaxis Fluid Model*

14h00 - Tuesday August 11<sup>th</sup>

**Min TANG**

Université Paul Sabatier

*Asymptotic preserving method for isentropic Euler Equation*

•

14h30 - Tuesday August 11<sup>th</sup>

**Thomas STIEHL**

University of Heidelberg

*Mathematical Models for Reconstitution after Bone Marrow Transplantation*

14h00 - Wednesday August 12<sup>th</sup>

**Dario GÖTZ**

Technische Universität Berlin

*Temporal semi-discretization of the equations*

describing generalized Newtonian fluid flow

# Mathematical Modelling in Medicine

July 20th – August 28th 2009, Luminy, Marseille, France

C  
entre  
M  
athématique  
R  
cherche  
A  
vancée  
S  
calcul  
O  
scientifique  
09

Student Seminar  
Auditorium

*2<sup>nd</sup> Week: 10-14 August*

14h30 - Wednesday August 12th  
**Fredérique CHARLES**

ENS-Cachan

*Modélisation cinétique et simulation particulière du transport  
de poussières en cas d'accident de perte de vide dans ITER.*

14h00 - Thursday August 13<sup>th</sup>  
**Alexandra LAUGEROTTE**

Université Claude Bernard

*$\beta$ -adrenergic receptors (hormones, activation)*

14h30 - Thursday August 13<sup>th</sup>  
**Ayman MOUSSA**

CMLA

*Spray in the upper ways of the human lungs*

14h00 - Friday August 14<sup>th</sup>  
**Cristiana DI RUSSO**

Università Roma Tre

*Mathematical Modelling of Biofilms on the surface of monuments*

14h30 - Friday August 14<sup>th</sup>  
**Cristóbal BERTOGLIO**

INRIA-Rocquencourt

*Filtering-based data assimilation in vascular fluid-structure interaction*

# Mathematical Modelling in Medicine

July 20th – August 28th 2009, Luminy, Marseille, France

Student Seminar  
Auditorium

3<sup>rd</sup> Week: 17-21 August

9h00 - Monday August 17<sup>th</sup>

**Alexis BLASSELLE**

Université Pierre et Marie Curie

*Modelling the skin*

9h30 - Monday August 17<sup>th</sup>

**Pierre GABRIEL**

Laboratoire Jacques-Louis Lions

*Asymptotic behavior for a fragmentation equation*

14h00 - Tuesday August 17<sup>th</sup>

**Augusto GEROLIN**

Institut Fourier

*Abel's Toboggan*

14h30 - Tuesday August 17<sup>th</sup>

**Jean-Baptiste LAGAERT**

Université de Bordeaux 1 – INRIA

*Glioblastoma Model (Brian Tumor)*

14h00 - Wednesday August 19<sup>th</sup>

**Jean-Joseph CRISTOPHE**

Tohoku University / Université Paris VI

*Patient-specific morphological and blood flow numerical  
analysis of the pulmonary arteries under pneumothorax*

C  
entre  
M  
athématique  
R  
cherche  
A  
vancée  
S  
calcul  
09  
scientifique

# Mathematical Modelling in Medicine

July 20th – August 28th 2009, Luminy, Marseille, France

C  
entre  
M  
télé  
mathématique  
R  
recherche  
A  
avancée  
S  
calcul  
O  
scientifique  
09

Student Seminar  
14:00 - Auditorium

*3<sup>rd</sup> Week: 17-21 August*

14h30 - Wednesday August 19<sup>th</sup>

**Julien OLIVIER**

LAMA - Université de Savoie

*On the modelization of complex fluids*

14h00 - Thursday August 20<sup>th</sup>

**Federico Verga**

Université de Provence

*A mathematical model for growing metastatic tumors*

14h30 - Thursday August 20<sup>th</sup>

**Sébastien BENZEKRY**

Université de Provence

*Asymptotic behavior of the renewal equation*

14h00 - Friday August 21<sup>th</sup>

**Christoph WINKLER**

Universität Wien

*Image Analysis of Actin Filament Meshworks*