

Bio-, Medical, Statistical & Mathematical Physics

Convener: Patricia Losada Perez (ULB) & Thomas Gilbert (ULB), Forum-G

- 14:30 – 15:10 Invited talk: **Francesc Sagués** (Universidad de Barcelona, Spain)
[*The microtubule/kinesin system: A versatile realization of an active nematic*](#)
- 15:10 – 15:35 Invited talk: **Karel Proesmans** (UHasselt)
[*A perfect spring*](#)
- 15:35 – 16:00 Invited talk: **Hennie Valkenier** (ULB)
[*Synthetic Receptors for the Transmembrane Transport of Anions*](#)
- 16:00 – 16:20 **Francesca Cecchet** (UNamur)
[*Shedding light on nanoparticles/cell membranes membranes interactions with nonlinear optical spectroscopy*](#)
- 16:20 – 16:50 **Coffee break**
- 16:50 – 17:10 **Joseph Indekeu** (KULeuven)
[*Solving nonlinear differential equations by analytic iteration*](#)
- 17:10 – 17:30 **Derick Yongabi** (KULeuven)
[*Detection of cell-material interactions and beyond -A QCM-D study of yeast, bacteria and human cells*](#)
- 17:30 – 17:50 **Stefanos K. Nomidis** (KULeuven)
[*Twist-bend coupling: A twist in DNA mechanics*](#)
- 17:50 – 18:10 **Frederik Vreys** (UHasselt)
[*Towards lab-on-card, label-free enzyme immunoassays based on electrical impedance spectroscopy*](#)
- Posters:
- BioMed-01-C **Mehrnaz M. Babaki** (LPP/ERM-KMS)
[*The Structure of Red Blood Cell's Aggregates*](#)
- BioMed-02-C **Soroush Bakhshi Sichani** (KULeuven)
[*An enhanced MEMS-based gas ionization sensor by seedless growth of ZnO nanowires*](#)
- BioMed-03-C **Seppe Bormans** (UHasselt)
[*Experimental validation of a biosensing technique which monitors thermal changes at the interface*](#)
- BioMed-04-C **Alessia Gennaro** (KULeuven)
[*A compact device for simultaneous dielectric spectroscopy and gravimetric analysis using quartz crystal microbalance under controlled humidity*](#)

- BioMed-05-C **Mehran Khorshid** (KULeuven)
[*Hot-wire based thermal waves technique - A novel biosensing platform*](#)
- BioMed-06-C **Marijn Lemmens** (UHasselt)
[*Multi-frequency electrical impedance analysis for monitoring aqueous solutions using an accelerated neural network approach*](#)
- BioMed-07-C **Eleonore Martin** (UMons)
[*Simulation of Nuclear Magnetic Relaxation Induced by Superparamagnetic Nanoparticles trapped in a biological tissue*](#)
- BioMed-08-C **Gilles Oudebrouckx** (UHasselt)
[*Optimizing a thermal based sensor setup for monitoring physical changes of thin films over time using numerical modelling*](#)
- BioMed-09-C **Wouter Stilman** (KULeuven)
[*Impedimetric detection of yeast using synthetic whole-cell receptors*](#)
- BioMed-10 **Amirreza Gholivand** (LPP/ERM-KMS)
[*Analysis of red blood cells behaviour in the microfluidic device*](#)