MS21: Mathematical modelling in biology Organizers: Chiara Giverso, Giulio Lucci, Giulia Pozzi and Davide Riccobelli		
Part I - Monday, August 28th		
Time	**Speaker**	**Name of the talk**
15:45-16:10	Davide Riccobelli	Mathematical modelling of brain tumour growth: reduced order modelling and parameter estimation
16:10-16:35	Martina Conte	A multiscale description of combined therapy effects on tumor progression
16:35-17:00	Zita Borbala Fulop	Multiscale modelling of fluid transport in vascular tumours subjected to electrophoresis anti-cancer therapies
17:00-17:25	Denise Grappein	An optimization based 3D-1D coupling approach for the simulation of tissue perfusion and chemical transport in evolving vascular networks
17:25-17:50	Giulia Pozzi	T cell therapy against cancer: A predictive diffuse-interface mathematical model informed by pre-clinical studies
17:50-18:15	Francesca Ballatore	Modeling brain tumour growth and deformation of cerebral ventricles: a patient-specific mechanical approach
Part II - Tuesday, August 29th		
Time	**Speaker**	**Name of the talk**
15:45-16:10	Davide Ambrosi	Mechanobiology of glioblastoma cells under osmotic stress
16:10-16:35	Dario Andrini	Mathematical modelling of axonal cortex contractility
16:35-17:00	Mattia Bacca	Mechanics of diffusion-mediated budding and implications for virus replication and infection
17:00-17:25	Alberto Salvadori	Actin based motility unveiled: how chemical energy is converted into motion
17:25-17:50	Stefano Turzi	Nematic elastomers, relaxation dynamics and active nematic gels
Part III - Wednesday, August 30th		
Time	**Speaker**	**Name of the talk**
10:45-11:10	Federica Caforio	Parameter estimation in cardiac biomechanical models based on physics-informed neural networks
11:10-11:35	Mattia Corti	Numerical Methods for Fisher-Kolmogorov Equation with Application to Prionic Proteins' Spreading in Neurodegeneration
11:35-12:00	Alberto Girelli	Mathematical Model of Fluid Flow in a Lymph Node
12:00-12:25	Giulio Lucci	Energetic and Fibre Reorientation Models to Describe Cell Cytoskeletal Reorientation under Cyclic Stretching
12:25-12:50	Luigi Preziosi	Modelling Cell Reorientation under Stretch