



Rosalba García Millán (BSc Universitat Autònoma de Barcelona, MSc University of Oxford, PhD Imperial College London) for *Mathematical Physics*

Applying the tools of physics to living matter has improved our quantitative understanding of many biological phenomena such as bird flocking, the healing of wounds and brain activity. I focus on the development and application of new mathematical tools to study such living matter, where many interacting individuals give rise to large-scale patterns despite fluctuations in time and space.

During my PhD at Imperial College and my postdoc at DAMTP in Cambridge, I developed and used field-theoretic methods that retain the particle entity of the agents involved, an aspect disregarded in many other theoretical approaches, but one that is crucial to account systematically for the different interacting individuals. I have applied these tools to study neuronal activity, bacterial motion and DNA organisation.

My research at St John's will provide a bridge between the small- and large-scale phenomena observed in living systems. Similar to the advent of thermodynamics, which helped to develop efficient steam engines in the Victorian times, my research lays the foundation for harvesting energy from highly efficient microbiological engines.



Benedek Kruchió (BA Vienna, MA HU Berlin, PhD SJC Cambridge) for *Classics*

I specialise in Greek literature from late antiquity and the interpretative traditions of this period, and I am currently finishing a book on Heliodorus's *Aethiopica*, a virtuosic novel from the fourth century CE. Telling the adventures of an Ethiopian princess, this text testifies to the cultural complexities of its time: it is a story about race, unstable identities, and sexual and religious purity. My study bridges the gap between formal analysis and discursive approaches to literature, seeking to understand the *Aethiopica*'s responsiveness to contrasting interpretative strategies in relation to the methods of contemporary reading communities such as Platonists and Christians.

I look forward to returning to St John's on a Research Fellowship, during which I will investigate how the literary production of late antiquity responds to the increasing popularity of allegorical interpretation in this transformative era. Moreover, I am preparing a conference on the intermedial and cross-cultural entanglements of late antique allegory, as well as a collaborative commentary on the forgotten Christian sequel to a 'pagan' Greek novel.