Summer internship available to UCL Physics & Astronomy students:
"Making statistical physics live"

The Department of Physics & Astronomy is looking for talented undergraduate summer project students to help developing animations that illustrate key concepts in its second-year core module PHAS0024 Statistical Physics of Matter.

As articulated by the famous physicist Arnold Sommerfeld, statistical physics "is a funny subject. The first time you go through it, you don't understand it at all. The second time you go through it, you think you understand it, except for one or two small points. The third time you go through it, you know you don't understand it, but by that time you are used to it, so it doesn't bother you anymore."

The key difficulty of statistical physics is its high level of abstraction. To convey its abstract concepts while being hampered by lack of (or reduced) face-to-face interaction with students due to social-distancing, interns on this project will design and create Python-based interactive online teaching contents that illustrate these concepts, based on open-source computer code that can easily be adjusted and manipulated by future students.

Candidate students are expected to be enrolled as an undergraduate student at UCL Physics & Astronomy, to have attended PHAS0024, to have 1st degree grades based on currently available information (including ICAs), to have a keen interest in and experience with Python programming, and to be available to work in total between 60 and 75 hours on the internship before 31st July 2020. All project work and supervision will take place remotely and supported by online communication. Student interns will be paid £10.75 per hour.

Interested UCL students are encouraged to apply by Wednesday 1st July 2020 to Prof. Bart Hoogenboom, b.hoogenboom@ucl.ac.uk, by submitting a single two-page PDF document that includes (i) contact details and UCL student number, (ii) a brief CV, (iii) mention of relevant grades so far, (iv) description of Python programming experience, (v) a brief description of an idea for an interactive animation based on taught material in PHAS0024.

Candidate students are also encouraged to verify similar opportunities via UCL Connected Learning Interships, and where appropriate also submit an application there (deadline is identical) – and make note of such application(s) in the application for the departmental internship.