



**One (1) PhD candidate position**  
**in QLUSTER project**  
**Quantum and Classical Ultrasoft Matter**

***(Call: MSCA Doctoral Networks 2021 (HORIZON-MSCA-2021-DN-01), GA 101072964)***  
***Funded under European Research Executive Agency (REA)***



Funded by the  
European Union

**Ref. 98734**  
**Heraklion 18/1/2023**

The Institute of Electronic Structure and Laser of the Foundation for research and Technology Hellas (IESL-FORTH), in the framework of the project QLUSTER, (P.I. Prof. D. Vlassopoulos, Call: HORIZON-MSCA-2021-DN-01, GA ID 101072964), funded under REA, is seeking to recruit one PhD candidate in the effects of attraction and polydispersity on the flow properties of frustrated soft colloids.

**PhD candidate**

Consider mixed shape colloids (eg spheres and rods) of different softness. A starting point can be grafted particles, by varying grafting density. Also, same shape, different size. Finally, replace matrix (molecular or viscoelastic material). Focus on nonlinear shear and uniaxial extensional rheology. A 3D mapping diagram of molecular parameters vs rheological state is targeted. Subsequently, important effects such as thixotropy, Payne effect and instabilities will be investigated. A connection to structure will be attempted. Interpretation using simulations (via collaboration) is also planned.

**Required qualifications**

- Undergraduate degree and Master's in fields covering soft matter fundamentals (e.g., chemical engineering, physics, materials science) (25%)
- Background in physical chemistry and rheology (15%)
- Laboratory experience with properties of soft materials (polymeric, colloidal), especially rheology (25%)
- Recommendation letters (25%)
- Presentation/communication skills (10%)

**Location:** IESL-FORTH, Heraklion Crete GREECE

**Start Date (earliest):** May 1, 2023

**Project Duration:** 12 Months with possibility of extension (to 3 years) according to the needs of the project

**Budget (gross per month):** approx. 2760 – 3134 euro

### **Application Submission**

Interested candidates who meet the aforementioned requirements are kindly asked to submit their applications, no later than **February 17, 2023, 23:59 local Greece time** to the address ([hr@iesl.forth.gr](mailto:hr@iesl.forth.gr)), with cc to the P.I., Prof. D. Vlassopoulos ([dvllasso@iesl.forth.gr](mailto:dvllasso@iesl.forth.gr)).

### **In order to be considered, the application must include:**

- Application Form (please download file from the job announcement webpage <https://www.iesl.forth.gr/en/jobs-bids/jobs/job-positions>)
- Detailed curriculum vitae (CV) of the candidate
- Scanned Copies of academic titles
- Recent certificate for enrollment in a PhD program

### **Any application received after the deadline will not be considered for the selection**

### **Contact**

For information and questions regarding the application and selection procedure, candidates are asked to contact the secretariat ([hr@iesl.forth.gr](mailto:hr@iesl.forth.gr)), tel. +30 2810-391301.

For information and questions about the advertised position and the research activity of the group or the institute, candidates are asked to contact Prof. D. Vlassopoulos ([dvllasso@iesl.forth.gr](mailto:dvllasso@iesl.forth.gr)), tel. +30 2810-391469.

### **Selection Announcement**

The result of the selection will be announced on the website of IESL-FORTH.

Candidates have the right to appeal the selection decision, by addressing their written objection to the IESL secretariat within five (5) days since the results announcement on the web. They also have the right to access (a) the files of the candidates as well as (b) the table of candidates' scores (ranking of candidates results). All the above information related to the selection procedure will be available at the secretariat of IESL-FORTH in line with the Hellenic Data Protection Authority.

### **GDPR**

FORTH is compliant with all legal procedures for the processing of personal data as defined by the **Regulation EU/2016/679 on the protection of natural persons with regard to the processing of personal data**. FORTH processes the personal data and relevant supporting documents that you have submitted to us. Processing of that data is carried out exclusively for the needs and purposes of this specific call. Such data shall not be transmitted to or communicated to any third party unless required by law. FORTH retains the above data up to the announcement of the final results of the call, unless further process and reservation is required by law or for purposes of exercise, enforcement, prosecution of certain one's legitimate legal rights' as defined in the Regulation EU/2016/679 and/or in national law. We inform you that under the Regulation EU/2016/679 you have the rights to be informed about your personal data, access to, rectification and erasure, restrictions of process and objection to as provided by applicable regulation and national laws. We acknowledge also to you, that you have the right to file a complaint to the national Data Protection Authority. For any further information regarding exercise of your personal data protection rights, you may contact the Data Protection Officer at FORTH at [dpo@admin.forth.gr](mailto:dpo@admin.forth.gr). You have the right to withdraw your application and consent for the processing of your personal data at any time. We inform you that, in this case, FORTH shall destroy such documents and/or supporting documents submitted and shall delete the related personal data.