

Foreword

The Eufoam 2016 conference, dedicated to the physics and chemistry of (mainly) liquid foams was held in Trinity College Dublin, Ireland, from July 3-6, 2016¹, organised by TCD's Foams and Complex System group². Eufoam, which dates back to 1994 (originally as Eurofoam), is a biennial meeting, attended by researchers from both academia and industry. The 2016 meeting saw over 100 participants discussing fundamental topics such as foam structure, drainage, rheology and physical chemistry of foams and thin liquid films, together with industrial applications of foams (e.g. in fire-fighting) and the use of foams for the production of novel materials (e.g for thermal insulation). Dublin also offered many opportunities to study the foam for which it is famous, and the conference dinner was accompanied by traditional Irish music.

Eufoam 2016 provided a coherent and comprehensive update of progress in the field, which is reflected in the wide spectrum of contributions to the proceedings:

- structure: numerical studies of 2d wet foams close to the jamming transition, X-ray tomography of foam columns
- rheology: simulations and experiments for 2d foam flow (viscous froth model for wet foams, ductile fracture of bubble rafts due to injection of air, bubble-rafts under imposed liquid flow)
- foam response to sound
- foam stability: foams obtained with silica/PEI gels; saponin-stabilized foams
- applications: cell size prediction in solid polymeric foams, enhanced oil recovery (shape of foam front, foam in sandstone); interaction of foams with fibres
- solid foams: cell size prediction in solid polymeric foams; cushioning in expanded polystyrene foams
- biology: geometry of beehives, foams produced by frogs

We would like to thank all contributors and referees for their time and effort to make this special issue possible. We are also grateful for the support of the Institute of Physics (IOP) throughout the organisation and running of the conference.

Eufoam 2018 will be organised by the Soft Matter group of the University in Liège, Belgium. This location should make a perfect setting for a well overdue presentation on Joseph Antoine Ferdinand Plateau and a session on beer foam!

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¹<http://eufoam2016.iopconfs.org>

² www.tcd.ie/physics/foams