

Filtration and separation science research in Oxford

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Within Oxford we have a series of researchers working on the theoretical modelling of filtration and separation science. I will present an overview of topics where open questions remain and potential cross-disciplinary collaborations could form. These topics include the mathematical modelling of

- Mathematical modelling of flexible membranes
- Modelling and optimization of direct-flow filtration
- Nutrient transport in cross-flow filtration
- Magnetic separation
- Network models for connected depth filters.

I will also discuss possible methods for technology translation to ensure our work is made accessible to the community and to industry.