



# Dr Annabel Markesteijn BSc, MSc, PhD

School of Engineering and Materials Science Queen Mary University of London Mile End Road London E1 4NS

tel: +44 (0)20 7882 8732 email: a.markesteijn@gmul.ac.uk web: www.sems.gmul.ac.uk/a.markesteijn

# 2023

# Jet Flow and Noise Predictions for the Doak Laboratory Experiment.

. Aiaa Journal vol. 61, (7) 3078-3090. American Institute of Aeronautics and Astronautics (Aiaa).

#### **CABARET** on rotating meshes.

. Applied Mathematics and Computation. Elsevier.

#### 2022

#### Robustness of Reduced-Order Jet Noise Models.

. Aiaa Journal vol. 61, (1) 1-14. American Institute of Aeronautics and Astronautics (Aiaa).

### Linear and nonlinear modelling of far-field propagation of broadband shock-associated noise.

. Journal of Sound and Vibration vol. 536,. Elsevier.

# Flow and Noise Predictions of the Isolated Subsonic Jets from the Doak Laboratory Experiment.

. Aiaa Journal. American Institute of Aeronautics and Astronautics.

# 2021

# Generalised Acoustic Analogy Modelling of Hot Jet Noise.

. Aiaa Journal: Devoted to Aerospace Research and Development. American Institute of Aeronautics and Astronautics.

### Broad Band Shock Associated Noise Modelling for High-Area-Ratio Under-Expanded Jets.

. Journal of The Acoustical Society of America. Nature Research.

# 2020

#### Flow and Noise Predictions of Coaxial Jets.

. Aiaa Journal vol. 58, (12) 5280-5293.

# 2019

## Simulations of co-axial jet flows on graphics processing units: the flow and noise analysis.

. Philosophical Transactions of The Royal Society a Mathematical Physical and Engineering Sciences vol. 377, (2159). The Royal Society.

# 2018

### CABARET solutions on graphics processing units for NASA jets: Grid sensitivity and unsteady inflow condition effect.

. Comptes Rendus - Mecanique.

# 2015

# A hybrid molecular dynamics/fluctuating hydrodynamics method for modelling liquids at multiple scales in space and time.

. The Journal of Chemical Physics vol. 143, (1). Aip Publishing.

# Multiscale molecular dynamics/hydrodynamics implementation of two dimensional Mercedes Benz water model.

. The European Physical Journal Special Topics vol. 224, (12) 2217-2238. Springer Nature.

### 2014

# A new non-linear two-time-level Central Leapfrog scheme in staggered conservation-flux variables for fluctuating hydrodynamics equations with GPU implementation.

. Computer Methods in Applied Mechanics and Engineering vol. 281, 29-53.

### Concurrent multiscale modelling of atomistic and hydrodynamic processes in liquids.

. Philosophical Transactions of The Royal Society a: Mathematical, Physical and Engineering Sciences vol. 372, (2021).

# Acoustic wave focusing by non-uniform mean flow in a rectangular duct with viscous walls.

. International Journal of Aeroacoustics vol. 13, (1-2) 183-206.

# Time asynchronous relative dimension in space method for multi-scale problems in fluid dynamics.

. Journal of Computational Physics vol. 258, 137-164.

### New two-level leapfrog scheme for modeling the stochastic Landau-Lifshitz equations.

. Computational Mathematics and Mathematical Physics vol. 54, (2) 315-334.

# Visualising and controlling the flow in biomolecular systems at and between multiple scales: from atoms to hydrodynamics at different locations in time and space.

. Faraday Discuss vol. 169, 285-302.

### 2012

# Acoustic wave focusing by non-uniform mean flow in a rectangular duct with viscous walls.

. 18th Aiaa/Ceas Aeroacoustics Conference (33rd Aiaa Aeroacoustics Conference).

### A comparison of the value of viscosity for several water models using Poiseuille flow in a nano-channel.

Markesteijn AP, Hartkamp R, Luding S and Westerweel J. J Chem Phys vol. 136, (13).

### 2010

# Tunable hydrodynamic chromatography of microparticles localized in short microchannels.

Jellema L-JC, Markesteijn AP, Westerweel J and Verpoorte E. Anal Chem vol. 82, (10) 4027-4035.

# 2009

### Flow injection of polymers into nanopores.

Markesteijn AP, Usta OB, Ali I, Balazs AC and Yeomans JM. Soft Matter vol. 5, (22) 4575-4579.Royal Society of Chemistry (Rsc).

### 2008

# Size-dependent trajectories of DNA macromolecules due to insulative dielectrophoresis in submicrometer-deep fluidic channels.

Parikesit GOF, Markesteijn AP, Piciu OM, Bossche A, Westerweel J, Young IT and Garini Y. *Biomicrofluidics vol.* 2, (2).

# Mixing with EOF for a Precipitation Reaction.

Nieborg VHJ, Markesteijn AP, Lindken RH, Witkamp GJ, Kramer HJM and Westerweel J. *Journal of Dispersion Science and Technology vol.* 29, (4) 587-592. Taylor & Francis.

### 2005

# Electroosmotic flow analysis of a branched U-turn nanofluidic device.

Parikesit GOF, Markesteijn AP, Kutchoukov VG, Piciu O, Bossche A, Westerweel J, Garini Y and Young IT. *Lab Chip vol. 5, (10) 1067-1074*.