

**Complete list of publications:
Charles Elliott**

September 24, 2021

HTML Links to Bibliographic and Bibliometric Databases:

• Web of Science • MathSciNet • Google Scholar

1. Books

176. C. M. ELLIOTT AND S. MCKEE, EDITORS *Industrial Numerical Analysis* CLARENDON PRESS, OXFORD 256PP (1986)
175. C. M. ELLIOTT AND J.R. OCKENDON *Weak and variational methods for moving boundary problems* PITMAN, LONDON 213 PP (1982)

2. Submitted for publication; Published on arXiv

174. A.ALPHONSE, D. CAETANO, A. DJURDJEVAC AND C. M. ELLIOTT *Function spaces, time derivatives and compactness for evolving families of Banach spaces* ARXIV PREPRINT ARXIV:2105.07908

3. Research articles in refereed journals and collections

173. C. M. ELLIOTT, L. HATCHER AND B. STINNER *On the sharp interface limit of a phase field model for near spherical two phase biomembranes* INTERFACES AND FREE BOUNDARIES (ACCEPTED) ARXIV PREPRINT ARXIV:2012.12580
172. D. CAETANO AND C. M. ELLIOTT *Cahn Hilliard equations on an evolving surface* EUROPEAN JOURNAL OF APPLIED MATHEMATICS (2021) **32** 937–1000
171. C. M. ELLIOTT, L. HATCHER AND P. J. HERBERT *Small deformations of spherical biomembranes* ADVANCED STUDIES IN PURE MATHEMATICS **85** (2020) VOL. TITLE. THE ROLE OF METRICS IN THE THEORY OF PARTIAL DIFFERENTIAL EQUATIONS 39–61
170. C. M. ELLIOTT AND L. HATCHER *Domain formation via phase separation for spherical biomembranes with small deformations* EUROPEAN JOURNAL OF APPLIED MATHEMATICS *Online 18 September 2020* ARXIV:1912.10317
169. C. M. ELLIOTT AND T. RANNER *A unified theory for continuous in time evolving finite element space approximations to partial differential equations in evolving domains* IMA JOURNAL OF NUMERICAL ANALYSIS **41** (2021) 1696–1845
168. L. CHURCH, A. DJURDJEVAC AND C. M. ELLIOTT *A domain mapping approach for elliptic equations posed on random bulk and surface domains* NUMERISCHE MATHEMATIK **146** (2020) 1–49
167. C. M. ELLIOTT AND P. J. HERBERT *Second order splitting of a class of fourth order PDEs with point constraints* MATHEMATICS OF COMPUTATION **89** (2020) 2613–2648
166. O. R. A. DUNBAR, M. M. DUNLOP, C. M. ELLIOTT, VIET HA HOANG, A. M. STUART *Reconciling Bayesian and Total Variation Methods for Binary Inversion* SIAM JOURNAL ON SCIENTIFIC COMPUTING **42** (2020) A1984–A2013
165. O. R. A. DUNBAR AND C. M. ELLIOTT *Binary recovery via phase field regularization for first-arrival traveltime tomography* INVERSE PROBLEMS **35** (2019)
164. C. M. ELLIOTT, H. FRITZ AND G. HOBBS *Second order splitting for a class of fourth order equations* MATHEMATICS OF COMPUTATION **88** (2019) 2605–2634

163. K. DECKELNICK, C. M. ELLIOTT AND TATSU-HIKO MIURA *Hamilton Jacobi equations on an evolving surface* MATHEMATICS OF COMPUTATION **88** (2019) 2635–2664
162. A. DJURDJEVAC, C. M. ELLIOTT, R. KORNUBER AND T. RANNER *Evolving surface finite element methods for random advection-diffusion equations* SIAM/ASA JOURNAL ON UNCERTAINTY QUANTIFICATION **6** (2018) 1544-1592
161. A. ALPHONSE, C. M. ELLIOTT AND J. TERRA *A coupled ligand receptor model bulk-surface system on a moving domain: well posedness, regularity and convergence to equilibrium* SIAM JOURNAL ON MATHEMATICAL ANALYSIS **50** (2018) 1544 –1592
160. C.M. ELLIOTT, H. FRITZ AND G. HOBBS *Small deformations of Helfrich energy minimising surfaces with applications to biomembranes* M3AS MATHEMATICAL MODELS AND METHODS IN APPLIED SCIENCES **27** (2017) 1547 – 1586
159. C. M. ELLIOTT, T. RANNER AND C. VENKATARAMAN *Coupled bulk-surface free boundary problems arising from a mathematical model of receptor-ligand dynamics* SIAM JOURNAL ON MATHEMATICAL ANALYSIS. **49** (2017) 360 - 397
158. C. M. ELLIOTT AND H. FRITZ *On approximations of the curve shortening flow and of the mean curvature flow based on the DeTurck trick* IMA JOURNAL OF NUMERICAL ANALYSIS **37** (2017) 543 – 603
157. C.M. ELLIOTT, C. GRAESER, G. HOBBS, R. KORNUBER AND M.-W. WOLF *A variational approach to particles in lipid membranes* ARCHIVE FOR RATIONAL MECHANICS AND ANALYSIS **222** (2016) 1011–1075
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155. K. P. DECKELNICK, V. M. STYLES AND C. M. ELLIOTT *Double obstacle phase field approach to an inverse problem for a discontinuous diffusion coefficient* INVERSE PROBLEMS **32** (4) (2016) 045008
154. A. ALPHONSE AND C. M. ELLIOTT *Well posedness of a fractional porous medium equation on an evolving surface* NONLINEAR ANALYSIS **137** (2016) 3–42
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152. A. ALPHONSE AND C. M. ELLIOTT *A Stefan problem on an evolving surface* PHILOSOPHICAL TRANSACTIONS OF THE ROYAL SOCIETY **373** (2015) 20140271; DOI: 10.1098/rsta.2014.0271
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148. C. M. ELLIOTT AND C. VENKATARAMAN *Error analysis for an ALE evolving surface finite element method* NUMERICAL METHODS FOR PDES **31** (2015) 459–499
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146. C. BRETT, C. M. ELLIOTT, M. HINTERMULLER AND C. LOBHARD *Mesh adaptivity in optimal control of elliptic variational inequalities with point-tracking of the state* INTERFACES AND FREE BOUNDARIES **17** (2015) 21–53
145. A. B. DUNCAN, C. M. ELLIOTT, G. A. PAVLIOTIS AND A. M. STUART *A multiscale analysis of diffusions on rapidly varying surfaces* JOURNAL OF NONLINEAR SCIENCE **25** (2015) 389–449

144. W. CROFT, C. M. ELLIOTT, G. LADDS, B. STINNER, C. VENKATARAMAN AND C. WESTON *Parameter identification problems in the modelling of cell motility* JOURNAL OF MATHEMATICAL BIOLOGY **71** (2015) 399–436
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136. C.M. ELLIOTT AND V.M. STYLES *An ALE ESFEM for solving PDEs on evolving surfaces* MILAN JOURNAL OF MATHEMATICS **80** (2012) 469–501
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