# Sergiu Klainerman

List of Publications by Year
in descending order

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|---|---|---|---|
| 57<br>papers | 4,612<br>citations | 172457<br>29<br>h-index | 206112<br>48<br>g-index |
| 57<br>all docs | 57<br>docs citations | 57<br>times ranked | 934<br>citing authors |

| # | Article | IF | Citations |
|---|---------|-----|-----------|
| 1 | Singular limits of quasilinear hyperbolic systems with large parameters and the incompressible limit of compressible fluids. Communications on Pure and Applied Mathematics, 1981, 34, 481-524. | 3.1 | 694 |
| 2 | Compressible and incompressible fluids. Communications on Pure and Applied Mathematics, 1982, 35, 629-651. | 3.1 | 464 |
| 3 | Uniform decay estimates and the lorentz invariance of the classical wave equation. Communications on Pure and Applied Mathematics, 1985, 38, 321-332. | 3.1 | 380 |
| 4 | Global existence for nonlinear wave equations. Communications on Pure and Applied Mathematics, 1980, 33, 43-101. | 3.1 | 302 |
| 5 | Global, small amplitude solutions to nonlinear evolution equations. Communications on Pure and Applied Mathematics, 1983, 36, 133-141. | 3.1 | 213 |
| 6 | Global existence of small amplitude solutions to nonlinear klein-gordon equations in four space-time dimensions. Communications on Pure and Applied Mathematics, 1985, 38, 631-641. | 3.1 | 196 |
| 7 | Formation of singularities for wave equations including the nonlinear vibrating string. Communications on Pure and Applied Mathematics, 1980, 33, 241-263. | 3.1 | 166 |
| 8 | Almost global existence to nonlinear wave equations in three space dimensions. Communications on Pure and Applied Mathematics, 1984, 37, 443-455. | 3.1 | 163 |
| 9 | On almost global existence for nonrelativistic wave equations in 3D. Communications on Pure and Applied Mathematics, 1996, 49, 307-321. | 3.1 | 134 |
| 10 | Long-time behavior of solutions to nonlinear evolution equations. Archive for Rational Mechanics and Analysis, 1982, 78, 73-98. | 2.4 | 133 |
| 11 | The Global Nonlinear Stability of the Minkowski Space (PMS-41). , 1994, , . |  | 133 |
| 12 | On the Maxwell-Klein-Gordon equation with finite energy. Duke Mathematical Journal, 1994, 74, 19. | 1.5 | 107 |
| 13 | Remarks on the global sobolev inequalities in the minkowski space Rn+1. Communications on Pure and Applied Mathematics, 1987, 40, 111-117. | 3.1 | 99 |
| 14 | Rough solutions of the Einstein-vacuum equations. Annals of Mathematics, 2005, 161, 1143-1193. | 4.2 | 97 |
| 15 | On the Uniqueness of Solutions to the Gross-Pitaevskii Hierarchy. Communications in Mathematical Physics, 2008, 279, 169-185. | 2.2 | 94 |
| 16 | The Evolution Problem in General Relativity. , 2003, , . |  | 88 |
| 17 | Decay and regularity for the schrÃ¶dinger equation. Journal D'Analyse Mathematique, 1992, 58, 25-37. | 0.8 | 84 |
| 18 | BILINEAR ESTIMATES AND APPLICATIONS TO NONLINEAR WAVE EQUATIONS. Communications in Contemporary Mathematics, 2002, 04, 223-295. | 1.2 | 84 |

| # | ARTICLE | IF | CITATIONS |
|---|---------|----|-----------|
| 19 | On the optimal local regularity for the Yang-Mills equations in $\mathbb{R}^{4+1}$. Journal of the American Mathematical Society, 1999, 12, 93-116. | 3.9 | 77 |
| 20 | The causal structure of microlocalized rough Einstein metrics. Annals of Mathematics, 2005, 161, 1195-1243. | 4.2 | 64 |
| 21 | The bounded $L^2$ L 2 curvature conjecture. Inventiones Mathematicae, 2015, 202, 91-216. | 2.5 | 62 |
| 22 | Remark on the optimal regularity for equations of wave maps type. Communications in Partial Differential Equations, 1997, 22, 99-133. | 2.2 | 60 |
| 23 | Title is missing!. International Mathematics Research Notices, 1996, 1996, 201. | 1.0 | 57 |
| 24 | On local and global aspects of the Cauchy problem in general relativity. Classical and Quantum Gravity, 1999, 16, R73-R157. | 4.0 | 56 |
| 25 | Peeling properties of asymptotically flat solutions to the Einstein vacuum equations. Classical and Quantum Gravity, 2003, 20, 3215-3257. | 4.0 | 51 |
| 26 | On the regularity properties of a model problem related to wave maps. Duke Mathematical Journal, 1997, 87, 553. | 1.5 | 47 |
| 27 | On the uniqueness of smooth, stationary black holes in vacuum. Inventiones Mathematicae, 2009, 175, 35-102. | 2.5 | 46 |
| 28 | On the formation of trapped surfaces. Acta Mathematica, 2012, 208, 211-333. | 3.9 | 45 |
| 29 | Causal geometry of Einstein-Vacuum spacetimes with finite curvature flux. Inventiones Mathematicae, 2005, 159, 437-529. | 2.5 | 39 |
| 30 | Small-data shock formation in solutions to 3D quasilinear wave equations: An overview. Journal of Hyperbolic Differential Equations, 2016, 13, 1-105. | 0.5 | 32 |
| 31 | PDE as a Unified Subject. , 2010, , 279-315. | | 32 |
| 32 | Weighted Lˆž and L1 estimates for solutions to the classical wave equation in three space dimensions. Communications on Pure and Applied Mathematics, 1984, 37, 269-288. | 3.1 | 31 |
| 33 | Hawking's Local Rigidity Theorem Without Analyticity. Geometric and Functional Analysis, 2010, 20, 845-869. | 1.8 | 28 |
| 34 | Uniqueness Results for Ill-Posed Characteristic Problems in Curved Space-Times. Communications in Mathematical Physics, 2009, 285, 873-900. | 2.2 | 27 |
| 35 | Global Solution for Massive Maxwell–Klein–Gordon Equations. Communications on Pure and Applied Mathematics, 2020, 73, 63-109. | 3.1 | 24 |
| 36 | On the radius of injectivity of null hypersurfaces. Journal of the American Mathematical Society, 2008, 21, 775-795. | 3.9 | 24 |

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|---|---------|----|-----------| 
| 37 | On the breakdown criterion in general relativity. Journal of the American Mathematical Society, 2009, 23, 345-382. | 3.9 | 23 |
| 38 | A fully anisotropic mechanism for formation of trapped surfaces in vacuum. Inventiones Mathematicae, 2014, 198, 1-26. | 2.5 | 23 |
| 39 | On the Global Stability of the Wave-map Equation in Kerr Spaces with Small Angular Momentum. Annals of PDE, 2015, 1, 1. | 1.8 | 20 |
| 40 | A physical space approach to wave equation bilinear estimates. Journal D'Analyse Mathematique, 2002, 87, 299-336. | 0.8 | 15 |
| 41 | On the local extension of Killing vector-fields in Ricci flat manifolds. Journal of the American Mathematical Society, 2013, 26, 563-593. | 3.9 | 13 |
| 42 | On emerging scarred surfaces for the Einstein vacuum equations. Discrete and Continuous Dynamical Systems, 2010, 28, 1007-1031. | 0.9 | 13 |
| 43 | RICCI DEFECTS OF MICROLOCALIZED EINSTEIN METRICS. Journal of Hyperbolic Differential Equations, 2004, 01, 85-113. | 0.5 | 12 |
| 44 | A KIRCHOFF–SOBOLEV PARAMETRIX FOR THE WAVE EQUATION AND APPLICATIONS. Journal of Hyperbolic Differential Equations, 2007, 04, 401-433. | 0.5 | 12 |
| 45 | On Nash's unique contribution to analysis in just three of his papers. Bulletin of the American Mathematical Society, 2016, 54, 283-305. | 1.5 | 10 |
| 46 | BILINEAR ESTIMATES ON CURVED SPACE–TIMES. Journal of Hyperbolic Differential Equations, 2005, 02, 279-291. | 0.5 | 9 |
| 47 | Rough solutions of the Einstein vacuum equations. Comptes Rendus Mathematique, 2002, 334, 125-130. | 0.3 | 8 |
| 48 | Rigidity results in general relativity: A review. Journal of Differential Geometry, 2015, 20, 123-156. | 1.0 | 7 |
| 49 | On the Formation of Trapped Surfaces. Abel Symposia, 2012, , 181-206. | 0.3 | 6 |
| 50 | Mathematical Theory of Classical Fields and General Relativity. , 1992, , 213-236. | | 5 |
| 51 | Sharp $L^1$ estimates for singular transport equations. Journal of the European Mathematical Society, 2008, 10, 477-505. | 1.4 | 2 |
| 52 | RECENT RESULTS IN MATHEMATICAL GR. International Journal of Modern Physics D, 2013, 22, 1330012. | 2.1 | 1 |
| 53 | Chapter Ten. On the Bounded L$^2$ Curvature Conjecture. , 2014, , 224-244. | | 0 |
| 54 | RECENT RESULTS IN MATHEMATICAL GR. , 2015, , . | | 0 |

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|---|---------|-----|-----------|
| 55 | The resolution of the bounded L 2 curvature conjecture in general relativity. Bulletin of the Brazilian Mathematical Society, 2016, 47, 445-456. | 0.8 | 0 |
| 56 | The resolution of the bounded L^2 curvature conjecture in general relativity. Séminaire Laurent Schwartz â€" EDP Et Applications, 0, , 1-18. | 0.0 | 0 |
| 57 | The Unity of Partial Differential Equations. Inference, 2020, 5, . | 0.0 | 0 |