Halil Mete Soner

List of Publications by Citations

115 papers	4,676 citations	35 h-index	66 g-index
127 ext. papers	5,393 ext. citations	1.6 avg, IF	5.8 L-index

#	Paper	IF	Citations
115	Phase transitions and generalized motion by mean curvature. *Communications on Pure and Applied Mathematics*, **1992**, 45, 1097-1123	2.5	315
114	Optimal Investment and Consumption with Transaction Costs. *Annals of Applied Probability*, **1994**, 4, 609	2	311
113	Optimal Control with State-Space Constraint I. *SIAM Journal on Control and Optimization*, **1986**, 24, 552-561	1.9	249
112	Option pricing with transaction costs and a nonlinear Black-Scholes equation. *Finance and Stochastics*, **1998**, 2, 369-397	1.9	208
111	Front Propagation and Phase Field Theory. *SIAM Journal on Control and Optimization*, **1993**, 31, 439-469	1.9	185
110	Optimal Control with State-Space Constraint. II. *SIAM Journal on Control and Optimization*, **1986**, 24, 1110-1122	1.9	177
109	Wellposedness of second order backward SDEs. *Probability Theory and Related Fields*, **2012**, 153, 149-190	1.4	158
108	There is no Nontrivial Hedging Portfolio for Option Pricing with Transaction Costs. *Annals of Applied Probability*, **1995**, 5, 327	2	149
107	Hedging in incomplete markets with HARA utility. *Journal of Economic Dynamics and Control*, **1997**, 21, 753-782	1.3	142
106	Second-order backward stochastic differential equations and fully nonlinear parabolic PDEs. *Communications on Pure and Applied Mathematics*, **2007**, 60, 1081-1110	2.5	134
105	Level set approach to mean curvature flow in arbitrary codimension. *Journal of Differential Geometry*, **1996**, 43, 693	1.7	123
104	Motion of a Set by the Curvature of Its Boundary. *Journal of Differential Equations*, **1993**, 101, 313-372	2.1	114
103	Martingale optimal transport and robust hedging in continuous time. *Probability Theory and Related Fields*, **2014**, 160, 391-427	1.4	108
102	Martingale representation theorem for theG-expectation. *Stochastic Processes and Their Applications*, **2011**, 121, 265-287	1.1	107
101	The Jacobian and the Ginzburg-Landau energy. *Calculus of Variations and Partial Differential Equations*, **2002**, 14, 151-191	1.5	106
100	Option hedging for small investors under liquidity costs. *Finance and Stochastics*, **2010**, 14, 317-341	1.9	85
99	Dynamic programming for stochastic target problems and geometric flows. *Journal of the European Mathematical Society*, **2002**, 4, 201-236	1.8	84

98	Dynamics of Ginzburg-Landau Vortices. *Archive for Rational Mechanics and Analysis*, **1998**, 142, 99-125	2.3	79
97	An Optimal Stochastic Production Planning Problem with Randomly Fluctuating Demand. *SIAM Journal on Control and Optimization*, **1987**, 25, 1494-1502	1.9	76
96	Dual formulation of second order target problems. *Annals of Applied Probability*, **2013**, 23,	2	74
95	Regularity of the Value Function for a Two-Dimensional Singular Stochastic Control Problem. *SIAM Journal on Control and Optimization*, **1989**, 27, 876-907	1.9	70
94	Optimal Replication of Contingent Claims under Portfolio Constraints. *Review of Financial Studies*, **1998**, 11, 59-79	7	65
93	Stochastic Target Problems, Dynamic Programming, and Viscosity Solutions. *SIAM Journal on Control and Optimization*, **2002**, 41, 404-424	1.9	61
92	An Asymptotic Analysis of Hierarchical Control of Manufacturing Systems Under Uncertainty. *Mathematics of Operations Research*, **1991**, 16, 596-608	1.5	60
91	Convergence of the phase-field equations to the mullins-sekerka problem with kinetic undercooling. *Archive for Rational Mechanics and Analysis*, **1995**, 131, 139-197	2.3	59
90	Heavy Traffic Convergence of a Controlled, Multiclass Queueing System. *SIAM Journal on Control and Optimization*, **1996**, 34, 2133-2171	1.9	51
89	Homogenization and Asymptotics for Small Transaction Costs. *SIAM Journal on Control and Optimization*, **2013**, 51, 2893-2921	1.9	49
88	. *Indiana University Mathematics Journal*, **1987**, 36, 501	0.6	49
87	Hedging with temporary price impact. *Mathematics and Financial Economics*, **2017**, 11, 215-239	1	46
86	Superreplication Under Gamma Constraints. *SIAM Journal on Control and Optimization*, **2000**, 39, 73-96	1.9	44
85	Robust hedging with proportional transaction costs. *Finance and Stochastics*, **2014**, 18, 327-347	1.9	43
84	Superhedging and Dynamic Risk Measures under Volatility Uncertainty. *SIAM Journal on Control and Optimization*, **2012**, 50, 2065-2089	1.9	41
83	Singular Perturbations in Manufacturing. *SIAM Journal on Control and Optimization*, **1993**, 31, 132-146	1.9	39
82	Singularities and uniqueness of cylindrically symmetric surfaces moving by mean curvature. *Communications in Partial Differential Equations*, **1993**, 18, 859-894	1.6	39
81	TRADING WITH SMALL PRICE IMPACT. *Mathematical Finance*, **2017**, 27, 350-400	2.3	36

80	A Viscosity Solution Approach to the Asymptotic Analysis of Queueing Systems. *Annals of Probability*, **1990**, 18,	1.9	35
79	The multi-dimensional super-replication problem under gamma constraints. *Annales De LiInstitut Henri Poincare (C) Analyse Non Lineaire*, **2005**, 22, 633-666	1.6	34
78	Turnpike Sets and Their Analysis in Stochastic Production Planning Problems. *Mathematics of Operations Research*, **1992**, 17, 932-950	1.5	33
77	Limiting Behavior of the Ginzburg-Landau Functional. *Journal of Functional Analysis*, **2002**, 192, 524-561	1.4	30
76	Martingale optimal transport in the Skorokhod space. *Stochastic Processes and Their Applications*, **2015**, 125, 3893-3931	1.1	29
75	Backward stochastic differential equations with constraints on the gains-process. *Annals of Probability*, **1998**, 26, 1522	1.9	29
74	Generalized one-sided estimates for solutions of Hamilton-Jacobi equations and applications. *Nonlinear Analysis: Theory, Methods & Applications*, **1989**, 13, 305-323	1.3	29
73	Optimal Control of Jump-Markov Processes and Viscosity Solutions. *The IMA Volumes in Mathematics and Its Applications*, **1988**, 501-511	0.5	29
72	Homogenization and Asymptotics for Small Transaction Costs: The Multidimensional Case. *Communications in Partial Differential Equations*, **2015**, 40, 2005-2046	1.6	27
71	RESILIENT PRICE IMPACT OF TRADING AND THE COST OF ILLIQUIDITY. *International Journal of Theoretical and Applied Finance*, **2013**, 16, 1350037	0.5	27
70	Weak approximation of . *Stochastic Processes and Their Applications*, **2012**, 122, 664-675	1.1	26
69	Duality and convergence for binomial markets with friction. *Finance and Stochastics*, **2013**, 17, 447-475	1.9	25
68	A free boundary problem related to singular stochastic control: the parabolic case. *Communications in Partial Differential Equations*, **1991**, 16, 373-424	1.6	25
67	Ginzburg-Landau equation and motion by mean curvature, II: Development of the initial interface. *Journal of Geometric Analysis*, **1997**, 7, 477-491	0.9	24
66	On the Hamilton-Jacobi-Bellman equations in Banach spaces. *Journal of Optimization Theory and Applications*, **1988**, 57, 429-437	1.6	24
65	The Dynamic Programming Equation for Second Order Stochastic Target Problems. *SIAM Journal on Control and Optimization*, **2009**, 48, 2344-2365	1.9	23
64	Asymptotics for fixed transaction costs. *Finance and Stochastics*, **2015**, 19, 363-414	1.9	22
63	Anisotropic Motion of an Interface Relaxed by the Formation of Infinitesimal Wrinkles. *Journal of Differential Equations*, **1995**, 119, 54-108	2.1	20

62	Three-phase boundary motions under constant velocities. I: The vanishing surface tension limit. *Proceedings of the Royal Society of Edinburgh Section A: Mathematics*, **1996**, 126, 837-865	1	19
61	Small time path behavior of double stochastic integrals and applications to stochastic control. *Annals of Applied Probability*, **2005**, 15, 2472	2	18
60	Scaling limits and regularity results for a class of Ginzburg-Landau systems. *Annales De Lilnstitut Henri Poincare (C) Analyse Non Lineaire*, **1999**, 16, 423-466	1.6	18
59	A Dynamic Programming Approach to Nonlinear Boundary Control Problems of Parabolic Type. *Journal of Functional Analysis*, **1993**, 117, 25-61	1.4	18
58	Liquidity Models in Continuous and Discrete Time **2011**, 333-365		18
57	Controlled markov processes, viscosity solutions and applications to mathematical finance. *Lecture Notes in Mathematics*, **1997**, 134-185	0.4	17
56	A stochastic representation for mean curvature type geometric flows. *Annals of Probability*, **2003**, 31, 1145	1.9	17
55	LIQUIDITY IN A BINOMIAL MARKET. *Mathematical Finance*, **2012**, 22, 250-276	2.3	16
54	Regularity and Convergence of Crystalline Motion. *SIAM Journal on Mathematical Analysis*, **1998**, 30, 19-37	1.7	16
53	A STOCHASTIC REPRESENTATION FOR THE LEVEL SET EQUATIONS. *Communications in Partial Differential Equations*, **2002**, 27, 2031-2053	1.6	16
52	Optimal dividend policy with random interest rates. *Journal of Mathematical Economics*, **2014**, 51, 93-101	0.6	15
51	The Dynamic Programming Equation for the Problem of Optimal Investment Under Capital Gains Taxes. *SIAM Journal on Control and Optimization*, **2007**, 46, 1779-1801	1.9	14
50	A boundary-value problem for Hamilton-Jacobi equations in hilbert spaces. *Applied Mathematics and Optimization*, **1991**, 24, 197-220	1.5	14
49	Optimal Consumption and Investment with Fixed and Proportional Transaction Costs. *SIAM Journal on Control and Optimization*, **2017**, 55, 1673-1710	1.9	13
48	Convergence of Ginzburg[illegible]andau Functionals in Three-Dimensional Superconductivity. *Archive for Rational Mechanics and Analysis*, **2012**, 205, 699-752	2.3	13
47	Asymptotic expansions for Markov processes with l[illegible]y generators. *Applied Mathematics and Optimization*, **1989**, 19, 203-223	1.5	13
46	Vortex Density Models for Superconductivity and Superfluidity. *Communications in Mathematical Physics*, **2013**, 318, 131-171	2	12
45	Merton Problem with Taxes: Characterization, Computation, and Approximation. *SIAM Journal on Financial Mathematics*, **2010**, 1, 366-395	1.4	12

44	Approximating stochastic volatility by recombinant trees. *Annals of Applied Probability*, **2014**, 24,	2	11
43	A remark on the large deviations of an ergodic markov process. *Stochastics*, **1987**, 22, 187-199		11
42	A Primer on Portfolio Choice with Small Transaction Costs. *Annual Review of Financial Economics*, **2017**, 9, 301-331	1.9	10
41	Optimal control of a one-dimensional storage process. *Applied Mathematics and Optimization*, **1985**, 13, 175-191	1.5	9
40	Some remarks on the Stefan problem with surface structure. *Quarterly of Applied Mathematics*, **1992**, 50, 291-303	0.7	9
39	Large liquidity expansion of super-hedging costs. *Asymptotic Analysis*, **2012**, 79, 45-64	0.7	8
38	Martingale optimal transport duality. *Mathematische Annalen*, **2021**, 379, 1685-1712	1	8
37	Optimal dividend policies with random profitability. *Mathematical Finance*, **2020**, 30, 228-259	2.3	6
36	Hedging Under an Expected Loss Constraint with Small Transaction Costs. *SIAM Journal on Financial Mathematics*, **2016**, 7, 508-551	1.4	5
35	Facelifting in utility maximization. *Finance and Stochastics*, **2016**, 20, 99-121	1.9	5
34	HEDGING UNDER GAMMA CONSTRAINTS BY OPTIMAL STOPPING AND FACE-LIFTING. *Mathematical Finance*, **2007**, 17, 59-79	2.3	5
33	The Problem of Super-replication under Constraints. *Lecture Notes in Mathematics*, **2003**, 133-172	0.4	5
32	Rectifiability of the distributional Jacobian for a class of functions. *Comptes Rendus Mathematique*, **1999**, 329, 683-688		5
31	Martingale Representation Theorem for the G-Expectation. *SSRN Electronic Journal*,	1	5
30	Constrained Optimal Transport. *Archive for Rational Mechanics and Analysis*, **2018**, 227, 929-965	2.3	4
29	A brief history of mathematics in finance. *Borsa Istanbul Review*, **2014**, 14, 57-63	3.1	4
28	Merton problem in a discrete market with frictions. *Nonlinear Analysis: Real World Applications*, **2013**, 14, 179-187	2.1	4
27	Resilient Price Impact of Trading and the Cost of Illiquidity. *SSRN Electronic Journal*, **2011**,	1	4

26	Stochastic control for a class of random evolution models. *Applied Mathematics and Optimization*, **2004**, 49, 113-121	1.5	4
25	Robust Hedging with Proportional Transaction Costs. *SSRN Electronic Journal*,	1	4
24	Hedging Under an Expected Loss Constraint with Small Transaction Costs. *SSRN Electronic Journal*,	1	4
23	Hedging with Temporary Price Impact. *SSRN Electronic Journal*, **2016**,	1	4
22	Viability and Arbitrage Under Knightian Uncertainty. *Econometrica*, **2021**, 89, 1207-1234	4.9	4
21	Utility maximization in an illiquid market. *Stochastics*, **2013**, 85, 692-706	0.6	3
20	Martingale Optimal Transport and Robust Hedging in Continuous Time. *SSRN Electronic Journal*, **2013**,	1	3
19	Stochastic Representations for Nonlinear Parabolic PDEs. *Handbook of Differential Equations: Evolutionary Equations*, **2007**, 3, 477-526		3
18	Homogenization and Asymptotics for Small Transaction Costs. *SSRN Electronic Journal*,	1	3
17	Convex Duality with Transaction Costs. *Mathematics of Operations Research*, **2017**, 42, 448-471	1.5	2
16	Stochastic Control for a Class of Random Evolution Models. *Applied Mathematics and Optimization*, **2004**, 49, 113-121	1.5	2
15	Optimal Replication of Contingent Claims under Portfolio Constraints. *SSRN Electronic Journal*, **1996**,	1	2
14	Liquidity Models in Continuous and Discrete Time. *SSRN Electronic Journal*,	1	2
13	Viability and Arbitrage Under Knightian Uncertainty. *SSRN Electronic Journal*,	1	2
12	Flow by Mean Curvature of Surfaces of Any Codimension **1996**, 123-134		2
11	Utility maximization in an illiquid market in continuous time. *Mathematical Methods of Operations Research*, **2016**, 84, 285-321	1	1
10	Hedging in an illiquid binomial market. *Nonlinear Analysis: Real World Applications*, **2014**, 16, 1-16	2.1	1
9	Trading with Small Price Impact. *SSRN Electronic Journal*, **2014**,	1	1

8	Optimal investment strategies with a reallocation constraint. *Mathematical Methods of Operations Research*, **2010**, 71, 551-585	1	1
7	Superhedging and Dynamic Risk Measures Under Volatility Uncertainty. *SSRN Electronic Journal*,	1	1
6	Martingale Optimal Transport in the Skorokhod Space. *SSRN Electronic Journal*,	1	1
5	Conditional Davis Pricing. *SSRN Electronic Journal*,	1	1
4	Second-Order Stochastic Target Problems with Generalized Market Impact. *SIAM Journal on Control and Optimization*, **2019**, 57, 4125-4149	1.9	1
3	Discrete Dividend Payments in Continuous Time. *Mathematics of Operations Research*, **2021**, 46, 895-911	1.5	0
2	Conditional Davis pricing. *Finance and Stochastics*, **2020**, 24, 565-599	1.9	
1	Merton problem in an infinite horizon and a discrete time with frictions. *Journal of Industrial and Management Optimization*, **2016**, 12, 1323-1331	2	