Henry Power

List of Publications by Year
in descending order

140 papers	2,198 citations	304743 22 h-index	289244 40 g-index
142 all docs	142 docs citations	142 times ranked	1174 citing authors

#	Article	IF	Citations
1	A numerical method for heat transfer problems using collocation and radial basis functions. International Journal for Numerical Methods in Engineering, 1998, 42, 1263-1278.	2.8	216
2	Second Kind Integral Equation Formulation of Stokes' Flows Past a Particle of Arbitrary Shape. SIAM Journal on Applied Mathematics, 1987, 47, 689-698.	1.8	174
3	Dual reciprocity method using compactly supported radial basis functions. Communications in Numerical Methods in Engineering, 1999, 15, 137-150.	1.3	89
4	A comparison analysis between unsymmetric and symmetric radial basis function collocation methods for the numerical solution of partial differential equations. Computers and Mathematics With Applications, 2002, 43, 551-583.	2.7	80
5	The use of PDE centres in the local RBF Hermitian method for 3D convective-diffusion problems. Journal of Computational Physics, 2009, 228, 4606-4624.	3.8	78
6	Some comments on the use of Radial Basis Functions in the Dual Reciprocity Method. Computational Mechanics, 1998, 21, 141-148.	4.0	63
7	The DRM-MD integral equation method: an efficient approach for the numerical solution of domain dominant problems. International Journal for Numerical Methods in Engineering, 1999, 44, 327-353.	2.8	62
8	An O(N) Taylor series multipole boundary element method for three-dimensional elasticity problems. Engineering Analysis With Boundary Elements, 2001, 25, 7-18.	3.7	57
9	Radial basis function Hermite collocation approach for the solution of time dependent convection–diffusion problems. Engineering Analysis With Boundary Elements, 2005, 29, 359-370.	3.7	51
10	Three-dimensional cerebrospinal fluid flow within the human ventricular system. Computer Methods in Biomechanics and Biomedical Engineering, 2008, 11, 123-133.	1.6	41
11	Dissolution-driven porous-medium convection in the presence of chemical reaction. Journal of Fluid Mechanics, 2014, 747, 316-349.	3.4	37
12	The DRM subdomain decomposition approach to solve the two-dimensional Navier–Stokes system of equations. Engineering Analysis With Boundary Elements, 2000, 24, 107-119.	3.7	36
13	A global meshless collocation particular solution method for solving the two-dimensional Navier–Stokes system of equations. Computers and Mathematics With Applications, 2013, 65, 1939-1955.	2.7	36
14	Three-dimensional thin film flow over and around an obstacle on an inclined plane. Physics of Fluids, 2009, 21, .	4.0	33
15	Analytical and numerical studies of the stability of thin-film rimming flow subject to surface shear. Journal of Fluid Mechanics, 2005, 541, 317.	3.4	30
16	An alternative local collocation strategy for high-convergence meshless PDE solutions, using radial basis functions. Journal of Computational Physics, 2013, 254, 52-75.	3.8	27
17	The stability of immiscible viscous fingering in Hele-Shaw cells with spatially varying permeability. Computer Methods in Applied Mechanics and Engineering, 2017, 320, 606-632.	6.6	27
18	Multi-domain dual reciprocity BEM approach for the Navier-Stokes system of equations. Communications in Numerical Methods in Engineering, 2000, 16, 671-681.	1.3	26

#	ARTICLE	IF	CITATIONS
19	Forward electric field calculation using BEM for time-varying magnetic field gradients and motion in strong static fields. Engineering Analysis With Boundary Elements, 2009, 33, 1074-1088.	3.7	26
20	A global meshless collocation particular solution method (integrated Radial Basis Function) for two-dimensional Stokes flow problems. Applied Mathematical Modelling, 2013, 37, 4538-4547.	4.2	26
21	Gaussian process modelling for uncertainty quantification in convectively-enhanced dissolution processes in porous media. Advances in Water Resources, 2017, 99, 1-14.	3.8	25
22	A double boundary collocation Hermitian approach for the solution of steady state convection–diffusion problems. Computers and Mathematics With Applications, 2008, 55, 1950-1960.	2.7	24
23	The radial basis function finite collocation approach for capturing sharp fronts in time dependent advection problems. Journal of Computational Physics, 2015, 298, 423-445.	3.8	22
24	Centrifugal inertia effects in high-speed hydrostatic air thrust bearings. Journal of Engineering Mathematics, 2012, 76, 59-80.	1.2	21
25	An order-N complexity meshless algorithm for transport-type PDEs, based on local Hermitian interpolation. Engineering Analysis With Boundary Elements, 2009, 33, 425-441.	3.7	20
26	A depth-averaged model for non-isothermal thin-film rimming flow. International Journal of Heat and Mass Transfer, 2014, 70, 1003-1015.	4.8	20
27	Dynamic-wetting effects in finite-mobility-ratio Hele-Shaw flow. Physical Review E, 2015, 92, 023021.	2.1	20
28	Calculation of the electric field resulting from human body rotation in a magnetic field. Physics in Medicine and Biology, 2012, 57, 4739-4753.	3.0	19
29	High-Rayleigh-number convection of a reactive solute in a porous medium. Journal of Fluid Mechanics, 2014, 760, 95-126.	3.4	18
30	On the Rallison and Acrivos solution for the deformation and burst of a viscous drop in an extensional flow. Journal of Fluid Mechanics, 1987, 185, 547-550.	3.4	17
31	Numerical solution of thermal convection problems using the multidomain boundary element method. Numerical Methods for Partial Differential Equations, 2002, 18, 469-489.	3.6	17
32	A boundary element method for the solution of finite mobility ratio immiscible displacement in a Hele–Shaw cell. International Journal for Numerical Methods in Fluids, 2015, 78, 521-551.	1.6	17
33	DRM multidomain mass conservative interpolation approach for the BEM solution of the two-dimensional navier-stokes equations. Computers and Mathematics With Applications, 2002, 43, 457-472.	2.7	16
34	Multipole fast algorithm for the least-squares approach of the method of fundamental solutions for three-dimensional harmonic problems. Numerical Methods for Partial Differential Equations, 2003, 19, 828-845.	3.6	16
35	A scalable and implicit meshless RBF method for the 3D unsteady nonlinear Richards equation with single and multi–zone domains. International Journal for Numerical Methods in Engineering, 2011, 85, 135-163.	2.8	16
36	Gaussian process emulators for quantifying uncertainty in CO_2 spreading predictions in heterogeneous media. Computers and Geosciences, 2017, 105, 113-119.	4.2	16

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37	BEM Solution for Design of Trenches in Multilayered Landfills. Journal of Environmental Engineering, ASCE, 1998, 124, 59-66.	1.4	15
38	The DRM sub-domain decomposition approach for two-dimensional thermal convection flow problems. Engineering Analysis With Boundary Elements, 2000, 24, 121-127.	3.7	15
39	Boundary Element Method for the dynamic evolution of intra-tow voids in dual-scale fibrous reinforcements using a Stokesâ€"Darcy formulation. Engineering Analysis With Boundary Elements, 2018, 87, 133-152.	3.7	15
40	On the stability of rimming flows to two-dimensional disturbances. Fluid Dynamics Research, 2003, 33, 141-172.	1.3	14
41	Non-Overlapping Domain Decomposition Algorithm for the Hermite Radial Basis Function Meshless Collocation Approach: Applications to Convection Diffusion Problems. Journal of Algorithms and Computational Technology, 2007, 1, 127-159.	0.7	14
42	Inertial effects on thin-film wave structures with imposed surface shear on an inclined plane. Physica D: Nonlinear Phenomena, 2016, 325, 86-97.	2.8	14
43	Immiscible thermo-viscous fingering in Hele-Shaw cells. Computers and Fluids, 2017, 156, 621-641.	2.5	14
44	Title is missing!. Journal of Applied Electrochemistry, 1997, 27, 1333-1342.	2.9	13
45	An efficient direct BEM numerical scheme for heat transfer problems using Fourier series. International Journal of Numerical Methods for Heat and Fluid Flow, 2000, 10, 687-720.	2.8	13
46	Multi-domain dual reciprocity for the solution of inelastic non-Newtonian flow problems at low Reynolds number. Computational Mechanics, 2001, 27, 396-411.	4.0	13
47	Dynamics of a high speed coned thrust bearing with a Navier slip boundary condition. Journal of Engineering Mathematics, 2016, 97, 1-24.	1.2	13
48	Stokesâ€"Brinkman formulation for prediction of void formation in dual-scale fibrous reinforcements: a BEM/DR-BEM simulation. Computational Mechanics, 2017, 59, 555-577.	4.0	13
49	The global approximate particular solution meshless method for two-dimensional linear elasticity problems. International Journal of Computer Mathematics, 2013, 90, 978-993.	1.8	12
50	The interaction of a deformable bubble with a rigid wall at small Reynolds number: A general approach via integral equations. Engineering Analysis With Boundary Elements, 1997, 19, 291-297.	3.7	11
51	Numerical simulation of the motion and deformation of a non-Newtonian shear-thinning drop suspended in a Newtonian circular Couette flow using DR-BEM. Engineering Analysis With Boundary Elements, 2009, 33, 93-104.	3.7	11
52	E-coil: an inverse boundary element method for a quasi-static problem. Physics in Medicine and Biology, 2010, 55, 3087-3100.	3.0	11
53	A local hermitian RBF meshless numerical method for the solution of multi-zone problems. Numerical Methods for Partial Differential Equations, 2011, 27, 1201-1230.	3.6	11
54	A solution to linear elasticity using locally supported RBF collocation in a generalised finite-difference mode. Engineering Analysis With Boundary Elements, 2013, 37, 32-41.	3.7	11

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55	Boundary element simulation of void formation in fibrous reinforcements based on the Stokesâ€"Darcy formulation. Computer Methods in Applied Mechanics and Engineering, 2016, 304, 265-293.	6.6	11
56	A global particular solution meshless approach for the four-sided lid-driven cavity flow problem in the presence of magnetic fields. Computers and Fluids, 2018, 160, 120-137.	2.5	11
57	Fluid dynamics of the slip boundary condition for isothermal rimming flow with moderate inertial effects. Physics of Fluids, 2019, 31, .	4.0	11
58	Integral equation formulation for the creeping flow of an incompressible viscous fluid between two arbitrarily closed surfaces, and a possible mathematical model for the brain fluid dynamics. Journal of Mathematical Analysis and Applications, 1989, 137, 1-16.	1.0	10
59	BEM SOLUTION FOR THE PROBLEM OF FLUX OF A MULTICOMPONENT MIXTURE OF GASES OUT OF A MULTILAYER LANDFILL. International Journal for Numerical Methods in Fluids, 1996, 23, 503-524.	1.6	10
60	A boundary element analysis of creeping flow past two porous bodies of arbitrary shape. Engineering Analysis With Boundary Elements, 1996, 17, 193-204.	3.7	10
61	Heat and solute diffusion with a moving interface: a boundary element approach. International Journal of Heat and Mass Transfer, 1998, 41, 2429-2436.	4.8	10
62	Iterative schemes for the solution of system of equations arising from the DRM in multi domain approach, and a comparative analysis of the performance of two different radial basis functions used in the interpolation. Engineering Analysis With Boundary Elements, 2005, 29, 107-125.	3.7	10
63	The Hermite radial basis function control volume method for multi-zones problems; A non-overlapping domain decomposition algorithm. Computer Methods in Applied Mechanics and Engineering, 2011, 200, 477-493.	6.6	10
64	Dynamics of a parallel, high-speed, lubricated thrust bearing with Navier slip boundary conditions. IMA Journal of Applied Mathematics, 2015, 80, 1409-1430.	1.6	10
65	Effects of hydrodynamic dispersion on the stability of buoyancy-driven porous media convection in the presence of first order chemical reaction. Journal of Engineering Mathematics, 2017, 103, 55-76.	1.2	10
66	An indirect Boundary Element Method for solving low Reynolds number Navier-Stokes equations in a three-dimensional cavity. International Journal for Numerical Methods in Engineering, 1998, 41, 1485-1505.	2.8	9
67	An efficient direct BEM numerical scheme for phase change problems using Fourier series. Computer Methods in Applied Mechanics and Engineering, 2002, 191, 2371-2402.	6.6	9
68	Free mesh radial basis function collocation approach for the numerical solution of system of multi-ion electrolytes. International Journal for Numerical Methods in Engineering, 2005, 64, 1699-1734.	2.8	9
69	An implicit upwinding volume element method based on meshless radial basis function techniques for modelling transport phenomena. International Journal for Numerical Methods in Engineering, 2010, 81, 1-27.	2.8	9
70	Boundary integral equation approach for stokes slip flow in rotating mixers. Discrete and Continuous Dynamical Systems - Series B, 2011, 15, 1019-1044.	0.9	9
71	Inertial effects at moderate Reynolds number in thin-film rimming flows driven by surface shear. Physics of Fluids, 2013, 25, .	4.0	9
72	On the dynamics of a high-speed coned fluid-lubricated bearing. IMA Journal of Applied Mathematics, 2014, 79, 535-561.	1.6	9

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73	A meshless local RBF collocation method using integral operators for linear elasticity. International Journal of Mechanical Sciences, 2014, 88, 246-258.	6.7	9
74	An adaptive RBF finite collocation approach to track transport processes across moving fronts. Computers and Mathematics With Applications, 2016, 71, 278-300.	2.7	9
75	The evolution of radial fingers at the interface between two viscous liquids. Engineering Analysis With Boundary Elements, 1994, 14, 297-304.	3.7	8
76	Low Reynolds number deformation of viscous drops in a bounded flow region under surface tension. Mathematical and Computer Modelling, 2000, 31, 99-118.	2.0	8
77	Multi-domain mass conservative dual reciprocity method for the solution of the non-Newtonian Stokes equations. Applied Mathematical Modelling, 2002, 26, 397-419.	4.2	8
78	A Hermite radial basis function collocation approach for the numerical simulation of crystallization processes in a channel. Communications in Numerical Methods in Engineering, 2005, 22, 119-135.	1.3	8
79	Modelling the effect of precipitation inhibitors on the crystallization process from well mixed over-saturated solutions in gypsum based on Langmuirâ€"Volmer flux correction. Journal of Crystal Growth, 2006, 295, 217-230.	1.5	8
80	Radial basis function Hermite collocation approach for the numerical simulation of the effect of precipitation inhibitor on the crystallization process of an over-saturated solution. Numerical Methods for Partial Differential Equations, 2006, 22, 361-380.	3.6	8
81	BEM solution of thin film flows on an inclined plane with a bottom outlet. Engineering Analysis With Boundary Elements, 2009, 33, 388-398.	3.7	8
82	Dynamics of a small gap gas lubricated bearing with Navier slip boundary conditions. Journal of Fluid Mechanics, 2017, 818, 68-99.	3.4	8
83	Multilevel and quasi-Monte Carlo methods for uncertainty quantification in particle travel times through random heterogeneous porous media. Royal Society Open Science, 2017, 4, 170203.	2.4	8
84	Boundary integral formulation for slow viscous flow in a deforming region containing a solid inclusion. Engineering Analysis With Boundary Elements, 2000, 24, 53-63.	3.7	7
85	Conservative interpolation for the boundary integral solution of the Navier-Stokes equations. Computational Mechanics, 2000, 26, 507-513.	4.0	7
86	A convergence analysis of the performance of the DRM-MD boundary integral approach. International Journal for Numerical Methods in Engineering, 2007, 71, 47-65.	2.8	7
87	A Meshless Solution Technique for the Solution of 3D Unsaturated Zone Problems, Based on Local Hermitian Interpolation with Radial Basis Functions. Transport in Porous Media, 2009, 79, 149-169.	2.6	7
88	Quasi-static multi-domain inverse boundary element method for MRI coil design with minimum induced E-field. Engineering Analysis With Boundary Elements, 2011, 35, 264-272.	3.7	7
89	An efficient accurate Local Method of Approximate Particular Solutions for solving convectionâ€"diffusion problems. Engineering Analysis With Boundary Elements, 2014, 47, 32-37.	3.7	7
90	Substrate degradation in high-Rayleigh-number reactive convection. Physics of Fluids, 2015, 27, .	4.0	7

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91	A global Stokes method of approximated particular solutions for unsteady two-dimensional Navier–Stokes system of equations. International Journal of Computer Mathematics, 2017, 94, 1515-1541.	1.8	7
92	Evaluation of the minimum face clearance of a high-speed gas-lubricated bearing with Navier slip boundary conditions under random excitations. Journal of Engineering Mathematics, 2018, 112, 17-35.	1.2	7
93	h-Adaptive mesh refinement strategy for the boundary element method based on local error analysis. Engineering Analysis With Boundary Elements, 2001, 25, 565-579.	3.7	6
94	The completed integral equation approach for the numerical solution of the motion of N solid particles in the interior of a deformable viscous drop. Engineering Analysis With Boundary Elements, 2004, 28, 333-344.	3.7	6
95	Iterative solution schemes for quadratic DRM–MD. Numerical Methods for Partial Differential Equations, 2008, 24, 1430-1459.	3.6	6
96	Numerical solution for an inverse MRI problem using a regularised boundary element method. Engineering Analysis With Boundary Elements, 2008, 32, 658-675.	3.7	6
97	A compressible flow model for the air-rotor–stator dynamics of a high-speed, squeeze-film thrust bearing. Journal of Fluid Mechanics, 2010, 655, 446-471.	3.4	6
98	<scp>S</scp>chwarz alternating domain decomposition approach for the solution of two–dimensional <scp>N</scp>avier–<scp>S</scp>tokes flow problems by the method of approximate particular solutions. Numerical Methods for Partial Differential Equations, 2015, 31, 777-797.	3.6	6
99	Numerical simulation of dendritic crystal growth in a channel. Engineering Analysis With Boundary Elements, 1997, 19, 331-337.	3.7	5
100	A boundary element study of the effect of surface dissolution on the evolution of immiscible viscous fingering within a Hele-Shaw cell. Engineering Analysis With Boundary Elements, 2013, 37, 1318-1330.	3.7	5
101	An efficient and accurate implementation of the Localized Regular Dual Reciprocity Method. Computers and Mathematics With Applications, 2015, 69, 1342-1366.	2.7	5
102	A note on the use of the Companion Solution (Dirichlet Green's function) on meshless boundary element methods. Engineering Analysis With Boundary Elements, 2017, 75, 57-64.	3.7	5
103	A numerical study of wave structures developed on the free surface of a film flowing on inclined planes and subjected to surface shear. International Journal for Numerical Methods in Engineering, 2006, 68, 755-789.	2.8	4
104	Boundary element solution of thermal creep flow in microfluidic devices. Engineering Analysis With Boundary Elements, 2012, 36, 1062-1073.	3.7	4
105	A boundary integral equation formulation for the thermal creep gas flow at finite Peclet numbers. International Journal of Mechanical Sciences, 2014, 88, 267-275.	6.7	4
106	Probability of Face Contact for a High-Speed Pressurised Liquid Film Bearing Including a Slip Boundary Condition. Lubricants, 2015, 3, 493-521.	2.9	4
107	Estimating the temperature evolution of foodstuffs during freezing with a 3D meshless numerical method. Engineering Analysis With Boundary Elements, 2015, 53, 46-55.	3.7	4
108	An adaptive dual reciprocity scheme for the numerical solution of the Poisson equation. Engineering Analysis With Boundary Elements, 2002, 26, 283-300.	3.7	3

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109	Multiple solutions of gravity and surface shear driven thin film flows over a rectangular cavity. Physics of Fluids, 2006, 18, 057102.	4.0	3
110	Mobility of shear thinning viscous drops in a shear Newtonian carrying flow using DR‐BEM. International Journal for Numerical Methods in Fluids, 2009, 59, 1321-1349.	1.6	3
111	Free surface Stokes flows obstructed by multiple obstacles. International Journal for Numerical Methods in Fluids, 2010, 62, 530-564.	1.6	3
112	A Control Volume Radial Basis Function Techniques for the Numerical Simulation of Saturated Flows in Semi-confined Aquifer. Transport in Porous Media, 2009, 79, 171-196.	2.6	3
113	Boundary elements solution of stokes flow between curved surfaces with nonlinear slip boundary condition. Numerical Methods for Partial Differential Equations, 2013, 29, 757-777.	3.6	3
114	The effect of Thompson and Troian's nonlinear slip condition on Couette flows between concentric rotating cylinders. Zeitschrift Fur Angewandte Mathematik Und Physik, 2015, 66, 2703-2718.	1.4	3
115	Evaluation of strong shear thinning non-Newtonian fluid flow using single domain DR-BEM. WIT Transactions on Modelling and Simulation, 2007, , .	0.0	3
116	The completed second kind integral equation formulation for Stokes flow with mixed boundary conditions. Communications in Numerical Methods in Engineering, 2001, 17, 215-227.	1.3	2
117	A numerical scheme for solving a periodically forced Reynolds equation. International Journal for Numerical Methods in Fluids, 2011, 67, 559-580.	1.6	2
118	Non-isothermal rimming flow with the effects of surface shear and droplet impact. Physics of Fluids, 2015, 27, .	4.0	2
119	Mathematical Modeling: Approaches for Model Solution. Theory and Applications of Transport in Porous Media, 2017, , 129-185.	0.4	2
120	The Neumann series as a fundamental solution of the two-dimensional convection–diffusion equation with variable velocity. Journal of Engineering Mathematics, 2008, 62, 189-202.	1.2	1
121	On thin film flow in hydrodynamic bearings with a radial step at finite Reynolds number. Journal of Engineering Mathematics, 2013, 83, 37-55.	1.2	1
122	A high‐resolution local RBF collocation method for steady‐state poroelasticity and hydromechanical damage analysis. International Journal for Numerical and Analytical Methods in Geomechanics, 2015, 39, 436-456.	3.3	1
123	The control volume radial basis function method CV-RBF with Richardson extrapolation in geochemical problems. Computers and Geosciences, 2015, 76, 151-163.	4.2	1
124	PDE centres enhancement in the Localized Regular Dual Reciprocity Method. Engineering Analysis With Boundary Elements, 2016, 64, 255-266.	3.7	1
125	A multi-layer integral model for locally-heated thin film flow. Journal of Computational Physics, 2017, 336, 51-68.	3.8	1
126	Boundary element solution of thermal creeping flow in a nano single mixer. WIT Transactions on Modelling and Simulation, 2010, , .	0.0	1

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127	Multi-domain DRM boundary element method for the numerical simulation of non-isothermal Newtonian and non-Newtonian flow problems. WIT Transactions on State-of-the-art in Science and Engineering, 2007, , 69-98.	0.0	1
128	Control volume-radial basis function method for two-dimensional non-linear heat conduction and convection problems. , 2010, , .		1
129	An Order-N Complexity Meshless Algorithm Based on Local Hermitian Interpolation. , 2009, , 99-124.		0
130	Boundary Integral Equation Approach for Stokes Flow with Non-Linear Slip Boundary Condition. , 2010, , .		0
131	A Generalised RBF Finite Difference Approach to Solve Nonlinear Heat Conduction Problems on Unstructured Datasets. , 2011, , .		0
132	Indirect boundary integral formulation for the solution of shear-thinning flow inside single rotor mixers. Numerical Methods for Partial Differential Equations, 2011, 27, 1610-1627.	3.6	0
133	Effect of possible rotor deformation on the probability of face contact for a liquid film bearing. Tribology International, 2017, 109, 297-310.	5.9	0
134	Influence of magnetic fields on simultaneous stationary solutions of two-dimensional sudden expansion channel flow at low Re m. Fluid Dynamics Research, 2018, 50, 051416.	1.3	0
135	Effect of random forcing on fluid-lubricated bearing. IMA Journal of Applied Mathematics, 2019, , .	1.6	0
136	Iterative schemes for the solution of systems of equations arising from the DRM in multidomains. WIT Transactions on State-of-the-art in Science and Engineering, 2007, , 237-298.	0.0	0
137	Local regular dual reciprocity method for 2D convection-diffusion equation. WIT Transactions on Modelling and Simulation, 2012, , .	0.0	0
138	A direct boundary element approach for the numerical simulation of finite mobility ratio immiscible displacement in a Hele-Shaw cell. , 2014, , .		0
139	Hydrokinetic turbine location analysis by a local collocation method with Radial Basis Functions for two-dimensional Shallow Water equations. , 2015, , .		0
140	A local RBF method based on a finite collocation approach. , 2015, , .		0