Weidong Gao

List of Publications by Year in Descending Order

116 papers	1,125 citations	18 h-index	26 g-index
130 ext. papers	1,366 ext. citations	2.5 avg, IF	4.67 L-index

#	Paper	IF	Citations
116	Clothing recognition based on deep sparse convolutional neural network. *International Journal of Clothing Science and Technology*, **2022**, 34, 119-133	0.7	0
115	Mélange fabric image retrieval based on soft similarity learning. *Journal of Engineered Fibers and Fabrics*, **2022**, 17, 155892502210888	0.9	
114	Hierarchically Structured and Scalable Artificial Muscles for Smart Textiles. *ACS Applied Materials & Interfaces*, **2021**, 13, 54386-54395	9.5	8
113	Analysis of Adhesion Effect of Solution on Cotton Fibers in Adhesive-aided Ring Spinning. *Fibers and Polymers*, **2021**, 22, 2323-2332	2	
112	A multi-task and multi-scale convolutional neural network for automatic recognition of woven fabric pattern. *Journal of Intelligent Manufacturing*, **2021**, 32, 1147-1161	6.7	11
111	Recognition of the layout of colored yarns in yarn-dyed fabrics. *Textile Reseach Journal*, **2021**, 91, 100-114	1.7	1
110	Microfiber pollution: an ongoing major environmental issue related to the sustainable development of textile and clothing industry. *Environment, Development and Sustainability*, **2021**, 23, 11240-11256	4.5	13
109	Fabric Retrieval Based on Multi-Task Learning. *IEEE Transactions on Image Processing*, **2021**, 30, 1570-1582	10.7	3
108	Established an eco-friendly cotton fabric treating process with enhancing anti-wrinkle performance. *Journal of Engineered Fibers and Fabrics*, **2021**, 16, 155892502110034	0.9	2
107	Color Prediction for Pre-Colored Cotton Fiber Blends Based on Improved Kubelka-Munk Double-Constant Theory. *Fibers and Polymers*, **2021**, 22, 412-420	2	4
106	Objective Evaluation of Fabric Wrinkles Based on 2-D Gabor Transform. *Fibers and Polymers*, **2020**, 21, 2138-2146	2	1
105	Instrumental evaluation of fabric shape retention by image analysis. *Textile Reseach Journal*, **2020**, 90, 2376-2384	1.7	5
104	Clothing Attribute Recognition Based on RCNN Framework Using L-Softmax Loss. *IEEE Access*, **2020**, 8, 48299-48313	3.5	7
103	Pattern design and optimization of yarn-dyed plaid fabric using modified interactive genetic algorithm. *Journal of the Textile Institute*, **2020**, 111, 1652-1661	1.5	4
102	An adhesive-aided ring spinning for improving cotton yarn quality with the aid of sodium carboxymethyl cellulose solution. *Journal of Engineered Fibers and Fabrics*, **2020**, 15, 155892502092783	0.9	2
101	Automatic Assessment of Fabric Smoothness Appearance Based on a Compact Convolutional Neural Network With Label Smoothing. *IEEE Access*, **2020**, 8, 26966-26974	3.5	4
100	Exploring the role of pullulan in the process of potato starch film formation. *Carbohydrate Polymers*, **2020**, 234, 115910	10.3	2

99	Whitening citric acid treated cotton fabrics by a TBCC-activated peroxide post-bleaching. *Cellulose*, **2020**, 27, 5367-5376	5.5	10
98	Image retrieval of wool fabric. Part II: based on low-level color features. *Textile Reseach Journal*, **2020**, 90, 797-808	1.7	5
97	Exploring the mechanism of pullulan delay potato starch long-term retrogradation from the viewpoint of amylopectin chain motion. *International Journal of Biological Macromolecules*, **2020**, 145, 84-91	7.9	6
96	. *IEEE Access*, **2020**, 8, 110678-110692	3.5	0
95	Pattern retrieval of yarn-dyed plaid fabric based on modified interactive genetic algorithm. *Color Research and Application*, **2020**, 45, 1143-1152	1.3	1
94	Color matching of vortex spun yarn and ring spun yarn by the composition of dope-dyed fiber. *Journal of the Textile Institute*, **2020**, 111, 172-177	1.5	1
93	Determination of optimal system parameters to characterize the wrinkle recovery of fabrics by an integrated shape retention evaluation system. *Textile Reseach Journal*, **2020**, 90, 91-100	1.7	6
92	In situ characterization of the morphological wrinkling of woven fibrous materials by a mechanical test. *Textile Reseach Journal*, **2020**, 90, 2085-2096	1.7	3
91	Microfibers: a preliminary discussion on their definition and sources. *Environmental Science and Pollution Research*, **2019**, 26, 29497-29501	5.1	30
90	Woven Fabric Density Measurement by Using Multi-Scale Convolutional Neural Networks. *IEEE Access*, **2019**, 7, 75810-75821	3.5	9
89	Fabric Image Retrieval System Using Hierarchical Search Based on Deep Convolutional Neural Network. *IEEE Access*, **2019**, 7, 35405-35417	3.5	24
88	Reducing yarn hairiness in ring spinning by an agent-aided system. *Textile Reseach Journal*, **2019**, 89, 4438-4451	1.7	7
87	Comment on "A planet too rich in fiber". *EMBO Reports*, **2019**, 20,	6.5	3
86	Detection of residual yarn on spinning bobbins based on salient region detection. *Journal of the Textile Institute*, **2019**, 110, 838-846	1.5	
85	Numerical simulation and analysis of the dynamic finite element model of the fiber motion in the air spinning process. *Textile Reseach Journal*, **2019**, 89, 1198-1206	1.7	2
84	Proactive Mobility Management Based on Virtual Cells in SDN-Enabled Ultra-Dense Networks **2019**,		4
83	Intelligent recognition of the patterns of yarn-dyed fabric based on LSRT images. *Journal of Engineered Fibers and Fabrics*, **2019**, 14, 155892501984065	0.9	3
82	Effect of pullulan on molecular chain conformations in the process of starch retrogradation condensed matter. *International Journal of Biological Macromolecules*, **2019**, 138, 736-743	7.9	5

81	Beyond the Definition of Microfiber Pollution is More Research. *AATCC Review*, **2019**, 19, 49-52	1.3	2
80	Yarn-Dyed Fabric Image Retrieval Using Colour Moments and the Perceptual Hash Algorithm. *Fibres and Textiles in Eastern Europe*, **2019**, 27, 60-69	0.9	2
79	Image retrieval of wool fabric. Part I: Based on low-level texture features. *Textile Reseach Journal*, **2019**, 89, 4195-4207	1.7	7
78	An eco-friendly way to whiten yellowish anti-wrinkle cotton fabrics using TBCC-activated peroxide low-temperature post-bleaching. *Cellulose*, **2019**, 26, 3575-3588	5.5	15
77	K-M theory of fabric knitted by three-channel rotor spun wool yarn. *Color Research and Application*, **2019**, 44, 243-248	1.3	
76	Decoloration of Multi-Color Fabric Images for Fabric Appearance Smoothness Evaluation by Supervised Image-to-Image Translation. *IEEE Access*, **2019**, 7, 181284-181294	3.5	4
75	Optimizing parameters of warp fatigue life tester by response surface methodology. *Journal of Engineered Fibers and Fabrics*, **2019**, 14, 155892501989380	0.9	1
74	Wicking Behaviors of Ring and Compact-Siro Ring Spun Yarns with Different Twists. *Autex Research Journal*, **2019**, 19, 68-73	1	8
73	In-situ characterization of handle characteristics of suiting woven fabrics by a simultaneous measurement method. *Textile Reseach Journal*, **2019**, 89, 2522-2531	1.7	5
72	Improved dyeing of poly-m-phenyleneisophthalamide using cationic dye based on macro-cation dyeing mechanism. *Dyes and Pigments*, **2019**, 163, 111-117	4.6	8
71	Numerical simulation of the fiber trajectories in vortex spinning under different process parameters based on the finite element model. *Textile Reseach Journal*, **2019**, 89, 2626-2636	1.7	1
70	Analysis of curve parameters to characterize multidirectional fabric wrinkling by a double extraction method. *Textile Reseach Journal*, **2019**, 89, 2973-2982	1.7	9
69	Analysis of the influence of the guided needle structure on the vortex spinning process and yarn properties. *Textile Reseach Journal*, **2019**, 89, 1246-1257	1.7	1
68	An intelligent computer method for automatic mosaic of sequential slub yarn images based on image processing. *Textile Reseach Journal*, **2018**, 88, 2854-2866	1.7	3
67	Cellulose nanocrystals modified with a triazine derivative and their reinforcement of poly(lactic acid)-based bionanocomposites. *Cellulose*, **2018**, 25, 2965-2976	5.5	17
66	Multi-perspective measurement of yarn hairiness using mirrored images. *Textile Reseach Journal*, **2018**, 88, 621-629	1.7	7
65	Optimization of Operational Parameters of Foam Sizing Process for Cotton Yarns Based on Plackett-Burman Experiment Design. *Autex Research Journal*, **2018**, 18, 61-66	1	4
64	A computer vision-based system for automatic detection of misarranged warp yarns in yarn-dyed fabric. Part I: continuous segmentation of warp yarns. *Journal of the Textile Institute*, **2018**, 109, 577-584	1.5	7

63	Process optimization of ultrasound-assisted treatment for soya bean protein isolate/polyacrylamide composite film. *Royal Society Open Science*, **2018**, 5, 180213	3.3	3
62	Synergy of Silane and Polyacrylate Treatments to Prepare Thermally Stable and Hydrophobic Cellulose Nanocrystals. *Chemistry Letters*, **2018**, 47, 1272-1275	1.7	1
61	Depth recovery of hairy fibers for precise yarn hairiness measurement. *Applied Optics*, **2018**, 57, 7021-7029	1.7	2
60	Evaluation of an Intelligent Computer Method for the Automatic Mosaic of Sequential Slub Yarn Images. *Fibres and Textiles in Eastern Europe*, **2018**, 26, 38-48	0.9	2
59	Cellulose nanocrystals modified with quaternary ammonium salts and its reinforcement of polystyrene. *Polymer Bulletin*, **2018**, 75, 2151-2166	2.4	16
58	Dynamic Measurement of Foam-Sized Yarn Properties from Yarn Sequence Images. *Autex Research Journal*, **2018**, 18, 314-322	1	3
57	Cellulose nanocrystals functionalized with amino-silane and epoxy-poly(ethylene glycol) for reinforcement and flexibilization of poly(lactic acid): material preparation and compatibility mechanism. *Cellulose*, **2018**, 25, 6447-6463	5.5	26
56	Weave pattern recognition by measuring fiber orientation with Fourier transform. *Journal of the Textile Institute*, **2017**, 108, 622-630	1.5	5
55	Effects of Snailase Treatment on Wettability of Raw Cotton Yarns in Pre-wetting Process of Foam Sizing. *Applied Biochemistry and Biotechnology*, **2017**, 182, 1065-1075	3.2	8
54	Poly(lactic acid)-based biocomposites reinforced with modified cellulose nanocrystals. *Cellulose*, **2017**, 24, 4773-4784	5.5	25
53	Image analysis for seam-puckering evaluation. *Textile Reseach Journal*, **2017**, 87, 2513-2523	1.7	2
52	Preparation of silica micro spheres via a semibatch sol□gel method. *Journal of Sol-Gel Science and Technology*, **2017**, 81, 669-677	2.3	10
51	Optimization of an alcoholic-alkaline freeze-drying treatment for granular cold-water swelling starches. *Starch/Staerke*, **2017**, 69, 1600198	2.3	4
50	Process optimization of ultrasound-assisted alcoholic-alkaline treatment for granular cold water swelling starches. *Ultrasonics Sonochemistry*, **2017**, 38, 579-584	8.9	13
49	Airflow Characteristics During the Rotor Spun Composite Yarn Spinning Process. *Fibres and Textiles in Eastern Europe*, **2017**, 25, 13-17	0.9	4
48	Automatic detection of layout of color yarns of yarn-dyed fabric. Part 2: Region segmentation of double-system-M□ange color fabric. *Color Research and Application*, **2016**, 41, 626-635	1.3	10
47	Inspecting anisotropy in wrinkle recovery angle of woven fabric. *Journal of the Textile Institute*, **2016**, 107, 711-718	1.5	1
46	Numerical simulation of flow field in complete condensing spinning: effects of suction unit and guiding device. *Journal of the Textile Institute*, **2016**, 107, 811-824	1.5	4

45	Sequential image for measurement of fabric crease recovery angle. *Journal of the Textile Institute*, **2016**, 107, 825-832	1.5	4
44	Measurement of long yarn hair based on hairiness segmentation and hairiness tracking. *Journal of the Textile Institute*, **2016**, 1-9	1.5	1
43	Automatic inspection of yarn-dyed fabric density by mathematical statistics of sub-images. *Journal of the Textile Institute*, **2015**, 106, 823-834	1.5	14
42	5-Aminolevulinic Acid-Mediated Sonodynamic Therapy Promotes Phenotypic Switching from Dedifferentiated to Differentiated Phenotype via Reactive Oxygen Species and p38 Mitogen-Activated Protein Kinase in Vascular Smooth Muscle Cells. *Ultrasound in Medicine and Biology*, **2015**, 41, 1681-9	3.5	9
41	An automatic scheduling method for weaving enterprises based on genetic algorithm. *Journal of the Textile Institute*, **2015**, 106, 1377-1387	1.5	9
40	Fabric seam detection based on wavelet transform and CIELAB color space: A comparison. *Optik*, **2015**, 126, 5650-5655	2.5	6
39	Automatic recognition of the color effect of yarn-dyed fabric by the smallest repeat unit recognition algorithm. *Textile Reseach Journal*, **2015**, 85, 432-446	1.7	16
38	Improving the hydrophobicity of nylon fabric by consecutive treatment with poly(acrylic acid), tetraethylorthosilicate, and octadecylamine. *Journal of Applied Polymer Science*, **2015**, 132, n/a-n/a	2.9	5
37	Automatic detection of layout of color yarns of yarn-dyed fabric. Part 1: Single-system-mélange color fabrics. *Color Research and Application*, **2015**, 40, 626-636	1.3	13
36	Xylanase- and cellulose-aided bioprocessing of bamboo. *Engineering in Life Sciences*, **2015**, 15, 605-611	3.4	3
35	Exploring the relationship between bending property and crease recovery of woven fabrics. *Journal of the Textile Institute*, **2015**, 106, 1173-1179	1.5	13
34	Dynamic measurement of fabric wrinkle recovery angle by video sequence processing. *Textile Reseach Journal*, **2014**, 84, 694-703	1.7	15
33	Antimicrobial activity and mechanism of PLA/TP composite nanofibrous films. *Journal of the Textile Institute*, **2014**, 105, 196-202	1.5	9
32	Evaluation of drug release property and blood compatibility of aspirin-loaded electrospun PLA/RSF composite nanofibers. *Iranian Polymer Journal (English Edition)*, **2013**, 22, 729-737	2.3	28
31	Image analysis measurement of cottonseed coat fragments in 100% cotton woven fabric. *Fibers and Polymers*, **2013**, 14, 1208-1214	2	5
30	Numerical simulation of a three-dimensional flow field in compact spinning with a perforated drum: Effect of a guiding device. *Textile Reseach Journal*, **2013**, 83, 2093-2108	1.7	15
29	Preparation and blood compatibility of electrospun PLA/curcumin composite membranes. *Fibers and Polymers*, **2012**, 13, 1254-1258	2	23
28	Color separation for colored fiber blends based on the fuzzy C-means cluster. *Color Research and Application*, **2012**, 37, 212-218	1.3	2

27	Automatic inspection of double-system-mélange yarn-dyed fabric density with color-gradient image. *Fibers and Polymers*, **2011**, 12, 127-131	2	18
26	Effects of ferric chloride on structure, surface morphology and combustion property of electrospun polyacrylonitrile composite nanofibers. *Fibers and Polymers*, **2011**, 12, 145-150	2	17
25	Preparation, characterization of antibacterial PLA/TP nanofibers. *Fibers and Polymers*, **2011**, 12, 340-344	2	12
24	Automatic recognition of woven fabric pattern based on image processing and BP neural network. *Journal of the Textile Institute*, **2011**, 102, 19-30	1.5	36
23	Structure and Morphological Evolvement of Electrospun Polyacrylonitrile/Organic-Modified Fe-Montmorillonite Composite Carbon Nanofibers. *International Journal of Polymer Analysis and Characterization*, **2011**, 16, 24-35	1.7	2
22	Genetic algorithm-based detection of the layout of color yarns. *Journal of the Textile Institute*, **2011**, 102, 172-179	1.5	9
21	Color matching for colored fiber blends based on the fuzzy c-mean cluster in HSV color space **2010**,		2
20	Structure, Thermal, and Antibacterial Properties of Polyacrylonitrile/Ferric Chloride Nanocomposite Fibers by Electrospinning. *International Journal of Polymer Analysis and Characterization*, **2010**, 15, 110-118	1.7	18
19	Automatic recognition of woven fabric patterns based on pattern database. *Fibers and Polymers*, **2010**, 11, 303-308	2	16
18	Preparation and characterization of electrospinning PLA/curcumin composite membranes. *Fibers and Polymers*, **2010**, 11, 1128-1131	2	54
17	Comparison Between Structures and Properties of ABS Nanocomposites Derived from Two Different Kinds of OMT. *Journal of Materials Engineering and Performance*, **2010**, 19, 171-176	1.6	23
16	Characterization of PVAc/TiO2 hybrid nanofibers: From fibrous morphologies to molecular structures. *Journal of Applied Polymer Science*, **2009**, 112, 1481-1485	2.9	13
15	Influences of organic-modified Fe-montmorillonite on structure, morphology and properties of polyacrylonitrile nanocomposite fibers. *Fibers and Polymers*, **2009**, 10, 750-755	2	24
14	Large-Scale Synthesis and Raman and Photoluminescence Properties of Single Crystalline β-SiC Nanowires Periodically Wrapped by Amorphous SiO2 Nanospheres 2. *Journal of Physical Chemistry C*, **2009**, 113, 91-96	3.8	64
13	Antibacterial properties of PLA nonwoven medical dressings coated with nanostructured silver. *Fibers and Polymers*, **2008**, 9, 556-560	2	21
12	Physical properties of Al-doped ZnO films deposited on nonwoven substrates by radio frequence magnetron sputtering **2008**, 5, 393-397		7
11	Structural characterization and dynamic water adsorption of electrospun polyamide6/montmorillonite nanofibers. *Journal of Applied Polymer Science*, **2008**, 107, 3535-3540	2.9	27
10	Influence of combined enzymatic treatment on one-bath scouring of cotton knitted fabrics. *Biocatalysis and Biotransformation*, **2007**, 25, 9-15	2.5	23

9	Surface functionalization of silk fabric by PTFE sputter coating. *Journal of Materials Science*, **2007**, 42, 8025-8028	4.3	36
8	Preparation and characterization of silver nanocomposite textile **2007**, 4, 101-106		50
7	Study on Gathering-and-twisting Mechanism of Fibers and CMC-Na/PAM/PVA Solution Optimization for Enhancing Cotton Yarn Performance by Adhesive-aided Ring Spinning. *Fibers and Polymers*,1	2	
6	Automated woven fabric texture periodicity extraction by spectral analysis and patch-DMF. *Journal of the Textile Institute*,1-23	1.5	
5	Effect of yarn structure on the liquid moisture transport in yarns. *Journal of the Textile Institute*,1-6	1.5	2
4	Patterned fabric image retrieval using relevant feedback via geometric similarity. *Textile Reseach Journal*,004051752110362	1.7	2
3	Effect of yarn structure, arrangement and surface on liquid moisture transfer in fabrics. *Journal of the Textile Institute*,1-8	1.5	
2	Automatic recognition of woven fabric structural parameters: a review. *Artificial Intelligence Review*,1	9.7	1
1	Evaluation of bamboo water-retting for fiber bundle extraction. *Textile Reseach Journal*,004051752110620	1.7	