Lily Peng

List of Publications by Citations

29 papers	7,790 citations	26 h-index	32 g-index
32 ext. papers	10,611 ext. citations	14.2 avg, IF	6.05 L-index

#	Paper	IF	Citations
29	Development and Validation of a Deep Learning Algorithm for Detection of Diabetic Retinopathy in Retinal Fundus Photographs. *JAMA - Journal of the American Medical Association*, **2016**, 316, 2402-2410	27.4	2967
28	International evaluation of an AI system for breast cancer screening. *Nature*, **2020**, 577, 89-94	50.4	707
27	Prediction of cardiovascular risk factors from retinal fundus photographs via deep learning. *Nature Biomedical Engineering*, **2018**, 2, 158-164	19	668
26	End-to-end lung cancer screening with three-dimensional deep learning on low-dose chest computed tomography. *Nature Medicine*, **2019**, 25, 954-961	50.5	590
25	TiO2 Nanotube Arrays of 1000 μm Length by Anodization of Titanium Foil: Phenol Red Diffusion. *Journal of Physical Chemistry C*, **2007**, 111, 14992-14997	3.8	430
24	Artificial intelligence and deep learning in ophthalmology. *British Journal of Ophthalmology*, **2019**, 103, 167-175	5.5	365
23	Grader Variability and the Importance of Reference Standards for Evaluating Machine Learning Models for Diabetic Retinopathy. *Ophthalmology*, **2018**, 125, 1264-1272	7.3	211
22	The effect of TiO2 nanotubes on endothelial function and smooth muscle proliferation. *Biomaterials*, **2009**, 30, 1268-72	15.6	209
21	Impact of Deep Learning Assistance on the Histopathologic Review of Lymph Nodes for Metastatic Breast Cancer. *American Journal of Surgical Pathology*, **2018**, 42, 1636-1646	6.7	192
20	Long-term small molecule and protein elution from TiO2 nanotubes. *Nano Letters*, **2009**, 9, 1932-6	11.5	178
19	How to Read Articles That Use Machine Learning: Users' Guides to the Medical Literature. *JAMA - Journal of the American Medical Association*, **2019**, 322, 1806-1816	27.4	172
18	Deep learning in ophthalmology: The technical and clinical considerations. *Progress in Retinal and Eye Research*, **2019**, 72, 100759	20.5	163
17	Using a Deep Learning Algorithm and Integrated Gradients Explanation to Assist Grading for Diabetic Retinopathy. *Ophthalmology*, **2019**, 126, 552-564	7.3	122
16	Performance of a Deep-Learning Algorithm vs Manual Grading for Detecting Diabetic Retinopathy in India. *JAMA Ophthalmology*, **2019**, 137, 987-993	3.9	91
15	Fabrication of mechanically robust, large area, polycrystalline nanotubular/porous TiO2 membranes. *Journal of Membrane Science*, **2008**, 319, 199-205	9.6	88
14	How to develop machine learning models for healthcare. *Nature Materials*, **2019**, 18, 410-414	27	83
13	Deep learning versus human graders for classifying diabetic retinopathy severity in a nationwide screening program. *Npj Digital Medicine*, **2019**, 2, 25	15.7	68

12	Deep Learning for Predicting Refractive Error From Retinal Fundus Images **2018**, 59, 2861-2868		68
11	Deep Learning and Glaucoma Specialists: The Relative Importance of Optic Disc Features to Predict Glaucoma Referral in Fundus Photographs. *Ophthalmology*, **2019**, 126, 1627-1639	7.3	67
10	Whole genome expression analysis reveals differential effects of TiO2 nanotubes on vascular cells. *Nano Letters*, **2010**, 10, 143-8	11.5	64
9	Detection of anaemia from retinal fundus images via deep learning. *Nature Biomedical Engineering*, **2020**, 4, 18-27	19	60
8	Contractility-dependent modulation of cell proliferation and adhesion by microscale topographical cues. *Small*, **2008**, 4, 1416-24	11	44
7	Protocol for development of a reporting guideline (TRIPOD-AI) and risk of bias tool (PROBAST-AI) for diagnostic and prognostic prediction model studies based on artificial intelligence. *BMJ Open*, **2021**, 11, e048008	3	44
6	Predicting optical coherence tomography-derived diabetic macular edema grades from fundus photographs using deep learning. *Nature Communications*, **2020**, 11, 130	17.4	42
5	Collagen fibril diameter and alignment promote the quiescent keratocyte phenotype. *Journal of Biomedical Materials Research - Part A*, **2012**, 100, 613-21	5.4	37
4	Predicting the risk of developing diabetic retinopathy using deep learning. *The Lancet Digital Health*, **2021**, 3, e10-e19	14.4	36
3	Remote Tool-Based Adjudication for Grading Diabetic Retinopathy. *Translational Vision Science and Technology*, **2019**, 8, 40	3.3	12
2	Scientific Discovery by Generating Counterfactuals Using Image Translation. *Lecture Notes in Computer Science*, **2020**, 273-283	0.9	6
1	Lessons learnt from harnessing deep learning for real-world clinical applications in ophthalmology: detecting diabetic retinopathy from retinal fundus photographs **2021**, 247-264		