

## Corrections to “Academic Review and Perspectives on Robotic Exoskeletons”

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We have noticed some errors in the above-titled paper (DOI: 10.1109/TNSRE.2019.2944655) [1].

Error 1: In [Table I](#), the ACPP of Singapore should be 14.94.

Error 2: In [Table II](#), the ACPP of Northwestern University should be 24.61, and the ACPP of University of Michigan should be 44.60.

Error 3: In [Table V](#), the institution of author Nicola Vitiello should be Scuola Superiore Sant’Anna, and the institution of author Robert Riener should be ETH Zurich.

Error 4: In [Table VI](#), the source of No. 9 most cited publication should be *IEEE Transactions on Mechatronics*, and its published year should be 2006. Accordingly, its AAC should be 32.4.

Error 5: There was a paragraph repeated in page 5. The second paragraph should be deleted.

All tables mentioned above were updated and presented below.

The original data collected on July 26, 2019 is available as supplementary material and can be downloaded from Xplore. All the figures in the above-titled paper are based on these data.

TABLE I

THE TOP 20 MOST PRODUCTIVE COUNTRIES OR REGIONS IN ROBOTIC EXOSKELETONS FIELD DURING 1990-2019

Rank	Country	TA	TC	ACPP	TPCP%
1	United States	1112	34117	30.68	31.56
2	China	564	4435	7.86	34.04
3	Italy	440	8884	20.19	43.86
4	Germany	278	7355	26.46	48.92
5	Japan	249	3838	15.41	32.53
6	Canada	242	3925	16.22	37.60
7	South Korea	220	2562	11.65	21.82
8	UK	219	4046	18.47	68.12
9	Spain	214	3073	14.36	45.33
10	Switzerland	172	5351	31.11	61.05
11	France	143	1968	13.76	45.45
12	Netherlands	115	3875	33.70	58.26
13	Australia	88	1467	16.67	65.91
14	Brazil	86	701	8.15	62.79
15	Singapore	79	1180	14.94	68.35
16	Belgium	77	1529	19.86	49.35
17	New Zealand	64	1340	20.94	56.25
18	Taiwan	51	545	10.69	17.65
19	Turkey	51	522	10.24	27.45
20	Mexico	49	324	6.61	44.90

TA, total articles; TC, total citations; ACPP, average citations per publication; TPCP, the percentage of cooperative publication.

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This article has supplementary downloadable material available at <http://ieeexplore.ieee.org>, provided by the authors.

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TABLE II  
THE PUBLICATIONS OF TOP 20 MOST PRODUCTIVE INSTITUTIONS DURING THE PERIOD 1990-2019

Rank	Institutions	TA	TC	ACPP	h-Index	Country
1	Massachusetts Institute of Technology	92	5775	62.77	40	United States
2	Scuola Superiore Sant'Anna	83	2387	28.76	24	Italy
3	Harvard University	71	3756	52.90	30	United States
4	Northwestern University	70	1723	24.61	23	United States
5	University of Auckland	53	1164	21.96	19	New Zealand
6	University of Michigan	48	2141	44.60	23	United States
7	Harbin Institute of Technology	47	172	3.66	6	China
8	Rehabilitation Institute of Chicago	46	1605	34.89	20	United States
9	University of Twente	46	2626	57.09	22	Netherlands
10	University of Zurich	45	1716	38.13	20	Switzerland
11	Chinese Academy of Sciences	45	467	10.38	10	China
12	ETH Zurich	43	1789	41.60	20	Switzerland
13	Delft University of Technology	41	1388	33.85	18	Netherlands
14	Ecole Polytechnique Federale de Lausanne	38	1019	26.82	16	Switzerland
15	Huazhong University of Science & Technology	38	463	12.18	11	China
16	Korea Advanced Institute of Science & Technology	37	730	19.73	12	South Korea
17	Arizona State University	37	486	13.14	12	United States
18	Shanghai Jiao Tong University	36	381	10.58	9	China
19	Nanyang Technology University	36	348	9.67	11	Singapore
20	University System of Maryland	35	1380	39.43	17	United States

TA, total articles; TC, total citations; ACPP, average citations per publication.

TABLE V  
TOP 10 MOST CITED PUBLICATIONS DURING THE PERIOD OF 1990-2019

Rank	Author	TA	TC	ACPP	h-Index	Institution
1	Krebs, Hermano Igo	48	3668	76.41	28	Massachusetts Institute of Technology
2	Vitiello, Nicola	45	1190	26.44	16	Scuola Superiore Sant'Anna
3	Riener, Robert	44	1717	39.02	20	ETH Zurich
4	Xie, Shengquan	36	947	26.31	16	University of Auckland
5	Pons, Jose L.	32	686	21.44	14	Consejo Superior de Investigaciones Cientificas (CSIC)
6	Hogan, Neville	30	3308	110.27	24	Massachusetts Institute of Technology
7	Reinkensmeyer, David J.	28	1923	68.68	20	University of California Irvine
8	van der Kooij, Herman	28	1823	65.11	19	University of Twente
9	Ferris, Daniel P.	27	1586	58.74	19	University of Michigan
10	Agrawal, Sunil K.	27	1031	38.19	13	Columbia University

TA, total articles; TC, total citations; ACPP, average citations per publication.

TABLE VI  
CONTRIBUTION OF THE TOP 10 AUTHORS IN ROBOTIC EXOSKELETONS RESEARCH

No.	Author	Title	TC	AAC	Source	Year
1	Gery Colombo, <i>et al.</i>	Treadmill training of paraplegic patients using a robotic orthosis	687	34.4	<i>Journal of Rehabilitation Research and Development</i>	2000
2	Peter S. Lum, <i>et al.</i>	Robot-assisted movement training compared with conventional therapy techniques for the rehabilitation of upper-limb motor function after stroke	642	35.7	<i>Archives of Physical Medicine and Rehabilitation</i>	2002
3	Jan F. Veneman, <i>et al.</i>	Design and Evaluation of the LOPES Exoskeleton Robot for Interactive Gait Rehabilitation	581	44.7	<i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i>	2007
4	Aaron M. Dollar, <i>et al.</i>	Lower Extremity Exoskeletons and Active Orthoses: Challenges and State-of-the-Art	572	47.7	<i>IEEE Transactions on Robotics</i>	2008
5	Gerdenke B. Prange, <i>et al.</i>	Systematic review of the effect of robot-aided therapy on recovery of the hemiparetic arm after stroke	543	38.8	<i>Journal of Rehabilitation Research and Development</i>	2006
6	Maureen K. Holden, <i>et al.</i>	Virtual Environments for Motor Rehabilitation: Review	538	35.9	<i>Cyberpsychology &amp; behavior</i>	2005
7	Cathrin Bütetfisch, <i>et al.</i>	Repetitive training of isolated movements improves the outcome of motor rehabilitation of the centrally paretic hand	512	20.5	<i>Journal of the Neurological Sciences</i>	1995
8	Laura Marchal-Cr espo, <i>et al.</i>	Review of control strategies for robotic movement training after neurologic injury	483	43.9	<i>Journal of NeuroEngineering and Rehabilitation</i>	2009
9	Zoss, AB, <i>et al.</i>	Biomechanical design of the Berkeley lower extremity exoskeleton (BLEEX)	454	32.4	<i>IEEE Transactions on Mechatronics</i>	2006
10	Latash, Mark L, <i>et al.</i>	Motor Control Strategies Revealed in the Structure of Motor Variability	426	23.7	<i>Exercise and Sport Sciences Reviews</i>	2002

TC, total citations; AAC, average annual citations.

## REFERENCES

- [1] G. Bao *et al.*, "Academic review and perspectives on robotic exoskeletons," *IEEE Trans. Neural Syst. Rehabil. Eng.*, vol. 27, no. 11, pp. 2294–2304, Nov. 2019.