

**JACMP: AN INNOVATION IN MEDICAL PHYSICS PUBLISHING—**

**JOURNAL OF APPLIED CLINICAL MEDICAL PHYSICS: MISSION AND SUBMISSION**

**JULY 13, 2015**

Michael D. Mills, PhD  
Editor-in-Chief and Co-Founder  
Journal of Applied Clinical Medical Physics (JACMP)  
<http://www.jacmp.org>

---

---

---

---

---

---

---

---

**OUTLINE**

- *What is the JACMP?*
- *JACMP Innovations*
- *Who Founded it?*
- *Who are the Editors?*
- *Where is it now?*
- *Online Metrics*
- *Final Thoughts*

---

---

---

---

---

---

---

---

**WHAT IS THE JACMP AND WHAT IS IT'S SIGNIFICANCE?**

- *The JACMP is AAPM's clinical medical physics academic journal*
- *JACMP was the world's first open access academic medical specialty journal – initially published in February, 2000*
- *JACMP has employed a Gold open-access model from inception:*
  - *Free to submit (required by gold)*
  - *Free to publish (not required by gold)*
  - *All articles free to access (required)*
  - *Author retains the copyright (required)*
- *Over 1000 articles have been published*

---

---

---

---

---

---

---

---

**MEANING OF THE JACMP INNOVATIONS WITHIN THE OPEN ACCESS REVOLUTION**

- 2000 - 2003 Budapest-Bethesda-Berlin Open Access Revolution
  - Increase the velocity of information
    - Review, edit and publish faster
    - Eliminate print
    - Remove barriers for access
  - Ownership of copyright?
    - Publisher?
    - Society?
    - Author!

---

---

---

---

---

---

---

---

**WHAT IS THE IDEAL "FREE" MODEL FOR OPEN SOURCE / OPEN ACCESS PUBLISHING?**

Platform	Choice	Independent from	Operation	Choice
Computer Server	Intel Workstation		Operating System	Linux
Operating System	Linux		Application Software	PHP, MySQL, PKP*
Application Software	PHP, MySQL, PKP		Publishing Partner	Multimed
Publishing Partner	Multimed		Intellectual Property	Authors
Intellectual Property	Authors		Commercial or Society Interests	

---

---

---

---

---

---

---

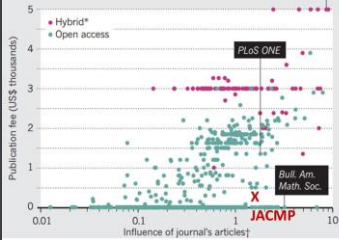
---

**THE COST OF PUBLISHING**

JOURNAL PRICES VARY WITH INFLUENCE AND BUSINESS MODEL.

**Price of prestige**

Open-access prices correlate weakly with the average influence of a journal's articles.



| NATURE | VOL 495 | 28 MARCH 2013 |

---

---

---

---

---

---

---

---

THE ACMP  
FORMED AN  
EXPLORATORY  
COMMITTEE IN  
NOVEMBER  
1997 TO  
ENVISION A  
NEW TYPE OF  
JOURNAL

- Members:
  - Michael Mills, Chair
  - Bruce Curran
  - Jeff Fairbanks
  - John Glover
  - Kenneth Hogstrom
  - Colin Orton
  - John Pacyniak
  - Alex Turner

---

---

---

---

---

---

---

---

WHO EDITED  
THE JACMP?

- The model is electronic only
- Supplementary files could include spreadsheets, videos, databases and other files
- Editors:
  - Peter Almond – 2000 – 2002
  - Ed McCullough – 2003
  - Michael Mills – 2004 – 2007
  - George Starkschall – 2008 – 2012
  - Michael Mills – 2013 - present

---

---

---

---

---

---

---

---

WHAT IS THE  
CURRENT  
OPERATIONAL  
MODEL OF  
THE JACMP?

- JACMP Editors include: – 1 Editor-in-Chief
  - 2 Deputy Editors-in-Chief
  - 64 Associate Editors in Radiation Oncology Physics
  - 11 Associate Editors in Imaging Physics
  - 2 Associate Editors in Radiation Protection
  - 2 Associate Editors in Management & Professional Topics
  - 1 Associate Editor in Radiation Measurements
  - 1 Associate Editor in Non-Ionizing Topics
- JACMP published 184 articles and had 407 peer-reviewed submissions in 2014

---

---

---

---

---

---

---

---

#### WHAT IS THE CURRENT OPERATIONAL MODEL OF THE JACMP?

- The JACMP has registered 6029 users
- The JACMP recorded 261,793 sessions from 152,826 unique IP addresses in 2014
- There is an average 78 days from submission until final disposition of the manuscript
- Submissions source 30% from the US, 10% from Canada & 60% from the rest of the world
- JACMP has an acceptance rate of ~ 50%
- JACMP is published on the Public Knowledge Project Open Journal Systems platform
- The JACMP utilizes the American English language standard
- The JACMP employs Canadian copyeditors, layout editors and proofreaders

---

---

---

---

---

---

---

---

---

---

#### THE GROWTH OF THE JACMP AVERAGED APPROXIMATELY 20% PER YEAR OVER THE PAST FIFTEEN YEARS

Year	# Articles Peer-Reviewed	# Articles Published	# Pages	% Growth Articles	% Growth Pages
2000	unknown	19	164		
2001	unknown	29	232	53	41
2002	unknown	36	327	24	41
2003	unknown	45	385	25	18
2004	unknown	32	379	-29	-2
2005	unknown	44	492	38	30
2006	unknown	40	435	-9	-12
2007	83	48	592	20	36
2008	117	62	609	29	3
2009	164	80	817	29	34
2010	192	100	1098	25	34
2011	208	103	1229	3	12
2012	288	140	1484	36	21
2013	323	166	1805	19	22
2014	407	184	2199	11	22
Average annual growth over fifteen years				19	21

---

---

---

---

---

---

---

---

---

---

#### HOW SHOULD WE THINK ABOUT ONLINE METRICS?

- In 2010 four information scientists posted the “altmetrics manifesto” (<http://www.altmetrics.org/manifesto>). It introduced the term “altmetrics” and faulted citation-based indicators, such as the journal impact factor for being slow, narrow, or lacking in context
- Altmetrics measure any online activity occurring around scientific papers and other research output. That can include HTML views and PDF downloads
- An article, for example, can be viewed by thousands and generate several tweets within days, but it may not be cited in another journal article for several years
- Altmetrics tracks impact outside the academy, impact of influential but uncited work, and impact from sources that are not peer reviewed




---

---

---

---

---

---

---

---

---

---

**JACMP  
STATISTICS  
FROM GOOGLE  
ANALYTICS**

Statistic	Number
Unique Visitors Each Month	~ 20,000
Page Views in 2014	Nearly one million
Article Downloads Per Week	~ 6500
Circulation	Open Access

---

---

---

---

---

---

---

---

---

---

---

---

**JACMP  
CURRENT  
WEBSITE  
ACTIVITY  
FROM  
PUBLIC  
KNOWLEDGE  
PROJECT  
JOURNAL  
STATISTICS  
AND GOOGLE  
ANALYTICS**

JACMP Article Views Date Range	# .pdf Articles Accessed	#HTML Articles Accessed	Total # Articles Accessed
2000 - 2004 Estimated			400,000
2005 - 4/7/15 (PKP)	2,380,440	2,222,314	4,612,192
Total Estimated			5,000,000
2014 only articles (PKP)	80,798	89,073	169,871
2013 (GA)			250,423
2014 (GA)			324,733
Q1, 2015 (GA)			94,129
One year after publication, the median JACMP .pdf article has been accessed ~700 times			
Three years after publication, the median JACMP .pdf article has been accessed ~1,500 times			
Ten years after publication, the median JACMP .pdf article has been accessed ~3,000 times			

---

---

---

---

---

---

---

---

---

---

---

---

**TOP FOUR  
ACCESSED  
JACMP .PDF  
ARTICLES IN  
THE PAST  
FIVE YEARS**
**PUBLIC  
KNOWLEDGE  
PROJECT  
JOURNAL  
STATISTICS  
EVALUATED  
ON 4/7/15**

Article	Number of .pdf accesses as of 4/7/15	Number of HTML accesses as of 4/7/15	Total .pdf and HTML accesses as of 4/7/15
Vol 12 # 2 Dose tolerance limits and dose volume histogram evaluation for stereotactic body radiotherapy (2011)	12,399	35,910	48,309
Vol 14 # 2 Dosimetric characterization and use of GAFCHROMIC EBT3 film for IMRT dose verification (2013)	10,168	1,109	11,277
Vol 12 # 2 Computed tomography dose index and dose length product for cone-beam CT: Monte Carlo simulations (2011)	8,997	5,061	14,058
Vol 13 # 3 Clinical commissioning and use of the Novalis Tx linear accelerator for SRS and SBRT (2012)	8,950	2,685	11,635

---

---

---

---

---

---

---

---

---

---

---

---

**FINAL  
THOUGHTS**

- *The JACMP provides benefit to the patient and dissemination of scholarly work without restrictions to a worldwide audience*
- *The historic JACMP growth rate of 20% per year comes with a growth in cost of about 20% per year*
- *This growth in cost is not sustainable within the AAPM financial structure*
- *It is likely the Journals Business Management Committee may implement some form of page charge for authors to cover these increasing costs*

---

---

---

---

---

---

---

---