

Professor Ayman Rateb Badawi

American University of
Sharjah Professor
Department of Mathematics and
Statistics (971) 6-515 x2573
abadawi@aus.edu

Professional Positions

Associate Professor and then Professor, American University of Sharjah. (August 2003 - Present).

Assistant Professor and then Associate Professor, Birzeit University. (August 1997 - June 2003). Visiting Assistant Professor, Emory and Henry College. (August 1994 - July 1996).

Education

PhD, Ring Theory: Pi-regular rings. University of North Texas,

1993. MS, Master degree in Mathematics. Tennessee Tech.

University, 1988.

Bachelor, Double major: Mathematics and Computer Science. Tennessee Tech. University, 1986.

Languages

Mathematics, Arabic, and English

Professional Memberships

American Math. Society, AMS. (August 1994 - Present).

Awards and Honors

Judging Panelist, the Global Undergraduate Awards. (December 1, 2019).

Top 1% of reviewers in Mathematics on Publons global reviewer database, Peer Review Award 2019. (September 29, 2019).

Judging Panellist, the Global Undergraduate Award. (October 10, 2018).

Publons Peer Review Award 2018, Publons. (September 15, 2018).

Excellence in Research Award for the Academic year 2014-2015, the Dean of College of Arts and Science at AUS. (April 22, 2015).

Excellence in Teaching, CAS-Teaching-Award: Excellent in teaching for the year 2012-2013. (May 5, 2013).

Publications

a. Books

- A. Badawi & J. Coykendall (Eds.) (2019), Advances in commutative algebra. In *Trends in Mathematics*. Springer International Publishing
[.https://api.elsevier.com/content/abstract/scopus_id/85064745598](https://api.elsevier.com/content/abstract/scopus_id/85064745598)
- A. Badawi, Vedadi, M. R., Yassemi, S., Darani, A. Y. (2018). *Homological and Combinatorial Methods in Algebra*. New York/Germany: Springer;.
- A. Badawi, K. Prasad, K. Srinivas, H. Panackal, B. Satyaanarayana, K. Neuerburg, G. Booth, M. Farag, & S. Juglal (Eds.), *Nearrings, NearFields, and Related Topics*. Singapore, New Jersey, London: world scientific(2017). <https://www.worldscientific.com/doi/pdf/10.1142/10375>
- Badawi (Ed.), *Focus on Commutative Rings Research*. United State of America: Nova Science (2014). http://www.novapublishers.org/catalog/product_info.php?products_id=4305
- A. Badawi. (2004). *Abstract Algebra Manual: Problems and Solutions*. Unites state of America: Nova Science. <https://www.amazon.com/Abstract-Algebra-Manual-Problems-Solutions/dp/1560728345>

b. Articles listed in web of science and Scopus (ISI-Articles)

- Badawi, A. R., Çelikel, E. (2020). On 1-absorbing primary ideals of commutative rings. *Journal of Algebra and its Applications, On line Ready*.
<https://www.worldscientific.com/doi/abs/10.1142/S021949882050111X>
- Abdulla, M., Badawi, A. R. (in press). ON DOT PRODUCT GRAPH OF A COMMUTATIVE RING II. *International Electronic Journal of Algebra*.
- Badawi, A. R., Issoual, M., Mahdou, N. (2019). On n-absorbing ideals and (m,n)-closed ideals in trivial ring extensions of commutative rings. *Journal of Algebra and its Applications*.
<https://www.worldscientific.com/doi/10.1142/S0219498819501238>
- Badawi, A. R., Fahid, B. (2019). On weakly 2-absorbing δ -primary ideals of commutative rings. *Georgian Mathematical Journal*. (on line)
https://api.elsevier.com/content/abstract/scopus_id/85056554127
- Badawi, A. R., Issoual, M., Mahdou, N. (2018). On n-absorbing ideals and (m,n)-closed ideals in trivial ring extensions of commutative rings. *Journal of Algebra and its Applications*.
https://api.elsevier.com/content/abstract/scopus_id/85050275155
- Badawi, A. R., Sonmez, D., Yesilot, G. (2018). On Weakly δ -Semiprimary Ideals of Commutative Rings. *Algebra Colloquium*, 25(3).
<https://www.worldscientific.com/doi/abs/10.1142/S1005386718000287>

- Badawi, A. R., Anderdon, D. F., Fahid, B. (2018). Weakly (m,n) -closed ideals and (m,n) -von Neumann regular rings. *Journal of the Korean Mathematical society*, 55(5), 13. <http://jkms.kms.or.kr/journal/view.html?multi%5B%5D=8076&tops=&book=JKMS&start=0&sc a>
- Anderson, D. F., Badawi, A. R. (2017). On (m, n) -closed ideals of commutative rings. *Journal of Algebra and its Applications*, 16(1). https://api.elsevier.com/content/abstract/scopus_id/84959045630
- Badawi, A. R. (2016). On weakly semiprime ideals of commutative rings. *Beitraege zur Algebra und Geometrie*, 57(3), 589-597. <https://link.springer.com/article/10.1007/s13366-016-0283-9>
- Badawi, A. R., Tekir, Ü., Aslankarayığit Uğurlu, E., Ulucak, G., Yetkin Çelikel, E. (2016). Generalizations of 2-absorbing primary ideals of commutative rings. *Turkish Journal of Mathematics*, 40(3), 703-717. https://api.elsevier.com/content/abstract/scopus_id/84964435056
- Badawi, A. R. (2015). On the Dot Product Graph of a Commutative Ring. *Communications in Algebra*, 43(1), 43-50. https://api.elsevier.com/content/abstract/scopus_id/84905270275
- Badawi, A. R., Tekir, U., Yetkin, E. (2015). On weakly 2-absorbing primary ideals of commutative rings. *Journal of the Korean Mathematical Society*, 52(1), 97-111. https://api.elsevier.com/content/abstract/scopus_id/84920261628
- Badawi, A. R., Tekir, U., Yetkin, E. (2014). On 2-absorbing primary ideals in commutative rings. *Bulletin of the Korean Mathematical Society*, 51(4), 1163-1173. https://api.elsevier.com/content/abstract/scopus_id/84905643723
- Badawi, A. R. (2014). On the Annihilator Graph of a Commutative Ring. *Communications in Algebra*, 42(1), 108-121. https://api.elsevier.com/content/abstract/scopus_id/84886419917
- Badawi, A. R., Darani, A. Y. (2013). On weakly 2-absorbing ideals of commutative rings. *Houston Journal of Mathematics*, 39(2), 441-452. https://api.elsevier.com/content/abstract/scopus_id/84881422675
- Anderson, D. F., Badawi, A. R. (2013). The generalized total graph of a commutative ring. *Journal of Algebra and its Applications*, 12(5). https://api.elsevier.com/content/abstract/scopus_id/84874792299
- Anderson, D. F., Badawi, A. R. (2012). Von neumann regular and related elements in commutative rings. *Algebra Colloquium*, 19(SPL. ISS. 1), 1017-1040. https://api.elsevier.com/content/abstract/scopus_id/84868602178
- Anderson, D. F., Badawi, A. R. (2012). On the total graph of a commutative ring without the zero element. *Journal of Algebra and its Applications*, 11(4). https://api.elsevier.com/content/abstract/scopus_id/84864338127
- Anderson, D. F., Badawi, A. R. (2011). On n -absorbing ideals of commutative rings. *Communications in Algebra*, 39(5), 1646-1672. https://api.elsevier.com/content/abstract/scopus_id/79959523749
- Anderson, D. F., Badawi, A. R. (2008). The total graph of a commutative ring. *Journal of Algebra*, 320(7), 2706-2719. https://api.elsevier.com/content/abstract/scopus_id/49549086859

- Anderson, D. F., Badawi, A. R. (2008). On the zero-divisor graph of a ring. *Communications in Algebra*, 36(8), 3073-3092. https://api.elsevier.com/content/abstract/scopus_id/49549101445
- Badawi, A. R., Jaballah, A. (2008). Some finiteness conditions on the set of overrings of a ϕ -ring. *Houston Journal of Mathematics*, 34(2), 397-408. https://api.elsevier.com/content/abstract/scopus_id/47649096389
- Badawi, A. R. (2007). On 2-absorbing ideals of commutative rings. *Bulletin of the Australian Mathematical Society*, 75(3), 417-429. https://api.elsevier.com/content/abstract/scopus_id/34547275279
- Badawi, A. R. (2007). On pseudo-almost valuation domains. *Communications in Algebra*, 35(4), 1167-1181. https://api.elsevier.com/content/abstract/scopus_id/34247400232
- Badawi, A. R., Dobbs, D. E. (2006). Strong ring extensions and Φ -pseudo-valuation rings. *Houston Journal of Mathematics*, 32(2), 379-398. https://api.elsevier.com/content/abstract/scopus_id/33747067442
- Badawi, A. R., Lucas, T. G. (2006). On Φ -Mori rings. *Houston Journal of Mathematics*, 32(1), 1-32. https://api.elsevier.com/content/abstract/scopus_id/33646394600
- Anderson, D. F., Badawi, A. R. (2005). On ϕ -Dedekind rings and ϕ -Krullrings. *Houston Journal of Mathematics*, 31(4), 1007-1022. https://api.elsevier.com/content/abstract/scopus_id/30344446936
- Badawi, A. R. (2005). Factoring nonnil ideals into prime and invertible ideals. *Bulletin of the London Mathematical Society*, 37(5), 665-672. https://api.elsevier.com/content/abstract/scopus_id/26444440068
- Badawi, A. R. (2004). A characterization of valuation domains via m -canonical ideals. *Communications in Algebra*, 32(11), 4363-4374. https://api.elsevier.com/content/abstract/scopus_id/227444493
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- Badawi, A. R., Dobbs, D. E. (2001). On locally divided rings and going-down rings. *Communications in Algebra*, 29(7), 2805-2825. https://api.elsevier.com/content/abstract/scopus_id/0035535725

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https://api.elsevier.com/content/abstract/scopus_id/0035536174
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https://api.elsevier.com/content/abstract/scopus_id/0001360309
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- Badawi, A. R. (1998). On comparability of ideals of commutative rings. *Communications in Algebra*, 26(3), 793-802. https://api.elsevier.com/content/abstract/scopus_id/21944442148
- Badawi, A. R. (1997). On abelian π -regular rings. *Communications in Algebra*, 25(4), 1009-1021.
https://api.elsevier.com/content/abstract/scopus_id/21744462113
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https://api.elsevier.com/content/abstract/scopus_id/21844512092
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- Badawi, A. R. (1993). $R(N)$ CONTAINS A DIVISION RING IFF R DOES. *AMERICAN MATHEMATICAL MONTHLY*, 100(7), 679-6

C. Book Chapters.

- Badawi, Ayman, n -Absorbing Ideals of Commutative Rings and Recent Progress on Three Conjectures: A Survey. In *Rings, Polynomials, and Modules*, edited by Marco Fontana, Sophie Frisch, Sarah Glaz, Francesca Tartarone, and Paolo Zanardo, Springer (2017)
- Badawi, Ayman, David F. Anderson. "The Zero-Divisor Graph of a Commutative Semigroup: A Survey, DOI: 10.1007/978-3-319-51718-6_2." In *Groups, Modules, and Model Theory-Surveys and Recent Developments*, edited by Manfred Droste, László Fuchs, Brendan Goldsmith, Lutz Strüningmann, 23-39. Germany/NewYork: Springer, 2017.
- Badawi, Ayman. "Recent results on annihilator graph of a commutative ring: A survey." In *Nearrings, Nearfields, and Related Topics*, edited by K. Prasad et al, (11 pages), New Jersey: World Scientific, 2017.
- Ayman Badawi. "Matrix Algebra, Basics of." In *Encyclopedia of Social Network Analysis and Mining*, edited by Alhajj, Reda, Rokne, Jon (Eds.), (9 pages), New York: Springer, 2014.

- Ayman Badawi. "On the Total Graph of a Ring and Its Related Graphs: A Survey." In *Commutative Algebra: Recent Advances in Commutative Rings, Integer-Valued Polynomials, and Polynomial Functions*, DOI 10.1007/978-1-4939-0925-4 3, edited by M. Fontana et al. (eds.), 39-54. New York: Springer Science + Business Media, 2014.
- Badawi, Ayman. "On rings with divided nil ideal: a survey." In *Commutative Algebra and its Applications*, edited by Marco Fontana, Salah-Eddine Kabbaj, Bruce Olberding and Irena Swanson, (20 pages). Germany: Walter De Gruyter, 2009.
- Badawi, Ayman, David F. Anderson, David E. Dobbs and Jay E. Shapiro. "Divisibility properties in ultrapowers of commutative rings." In *Commutative Algebra and its Applications*, edited by Marco Fontana, Salah-Eddine Kabbaj, Bruce Olberding and Irena Swanson, (11 pages). Germany: Walter De Gruyter, 2009.
- Badawi, Ayman. "A Counter example for a question on pseudo-valuation rings." In *Abelian Groups, Rings, Modules, and Homological Algebra*, edited by Pat Goeters and Overtoun M. G. Jenda, (5 pages). USA: Chapman and Hall/CRC, 2006.
- Badawi, Ayman, Lucas G. Thomas. "Rings with prime nilradical." In *Arithmetical properties of commutative rings and monoids*, edited by Scott Chapman, (15 pages). USA: Chapman & Hall/CRC, 2005.
- Badawi, Ayman. "Pseudo-valuation domains: a survey." In *Mathematics & mathematics education*, edited by S. Elaydi, E. S. Titi, M. Saleh, S. K. Jain and R. Abu-Saris, (22 pages). USA: World Scientific Publishing, 2002.
- Badawi, Ayman. "On the complete integral closure of rings that admit a ϕ -strongly prime ideal." In *Commutative Ring Theory and Applications*, edited by Marco Fontana, Salah-Eddine Kabbaj, and Sylvia Wiegand, (8 pages). USA: Chapman and Hall/CRC, 2002.
- Badawi, Ayman, David E. Dobbs. "Some examples of locally divided rings." In *Ideal theoretic methods in commutative algebra*, edited by Daniel D. Anderson and Ira J. Papick, (11 pages). USA: Dekker and now Taylor & Francis, 2001.
- Badawi Ayman, David F. Anderson. "Conditions equivalent to seminormality in certain classes of commutative rings." In *Ideal theoretic methods in commutative algebra*, edited by Daniel D. Anderson and Ira J. Papick, (11 pages). USA: Dekker and now Taylor & Francis, 2001.
- Badawi, Ayman. "On ϕ -pseudo-valuation rings." In *Advances in commutative ring theory*, edited by David E. Dobbs, Marco Fontana and Salah-Eddine Kabbaj, (10 pages). USA: Dekker and now Taylor & Francis, 1999.
- Badawi, Ayman, David F. Anderson and David E. Dobbs. "Pseudo-valuation rings." In *Commutative ring theory*, edited by Paul-Jean Cahen, Marco Fontana, Evan Houston and Salah-Eddine Kabbaj, (11 pages). Dekker and now Taylor & Francis: Dekker and now Taylor & Francis, 1997.
- Badawi, Ayman. "A visit to valuation and pseudo-valuation domains." In *Zero-dimensional commutative rings*, edited by David F. Anderson and David E. Dobbs, (7 pages). USA: Dekker and now Taylor & Francis, 1994.

Professional Service

Editor, Quasigroups and Related Systems, Moldova. (July 1, 2018 - Present).

Reviewer/Referee, Performed many reviews for ISI (Scopus)-Journals // see// <https://publons.com/researcher/1383573/ayman-badawi/peer-review/> . (January 1, 2016 - Present).

Editor, Journal of Interdisciplinary Mathematics. (September 1, 2015 - Present).

Editor, Analele Universitatii "Ovidius" Constanta - Seria Matematica, Constanta. (February 1, 2014 - Present).

Editor, Palestine Journal of Math, Hebron. (September 1, 2013 - Present).

Reviewer/Referee, American Math. Reviews / see my reviews on <https://mathscinet.ams.org/mathscinet/search/publications.html?pg1=RVRI&s1=345474&pg3=authreviews>. (December 1, 1999 - Present).

Committee Member, Third International Conference on Mathematics and Statistics AUS-ICMS '20, Sharjah. (April 20, 2019 - February 10, 2020).

Committee Member, Second International Conference on Mathematics and Statistics AUS-ICMS '15, (2015).

Committee Member, First International Conference on Mathematics and Statistics AUS-ICMS '10, (2010).

Electrical References

[Google Scholar](#)

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[Web of Science \(ISI\)](#) (you may need to sign in)

[American Math Science](#) (Math Science Net, you may need to sign in)

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