

السيرة الذاتية



د. عبدالرحيم محمود على عبدالله

● أستاذ مشارك في الرياضيات – كلية العلوم بأبها - جامعه الملك خالد
تاريخ ومحل الميلاد: ١٩٨٢/٥/٥ مواليد قريه الكرنك مركز أبوتشت - قنا - مصر

الوظائف السابقة:

- ✓ أستاذ مشارك الرياضيات – كلية العلوم بقنا - جامعه جنوب الوادي من ديسمبر ٢٠١٧ إلى الآن.
- ✓ أستاذ مساعد الرياضيات – كلية العلوم بقنا-جامعه جنوب الوادي من نوفمبر ٢٠١٢ إلى ديسمبر ٢٠١٧
- ✓ بوست دكتور في معمل ديناميكا الموائع بكلية الهندسه جامعه اولسان – كوريا الجنوبيه من ابريل ٢٠١٦ إلى فبراير ٢٠١٧ (التمويل من مشروع في الجامعة).
- ✓ بوست دكتور في كلية الهندسه - جامعه كيوشو باليابان – منحه من الحكومه اليابانيه لدراسه ما بعد الدكتوراه لمدته عامين (سبتمبر ٢٠١٣ إلى اغسطس ٢٠١٥).
- ✓ بوست دكتور في معمل ديناميكا الموائع بكلية الهندسه جامعه أولسان – كوريا الجنوبيه من يناير ٢٠١٣ إلى اغسطس ٢٠١٣ (التمويل من الحكومة الكورية).
- ✓ طالب دكتوراه في كلية الهندسه – جامعه كيوشو باليابان – منحه من الحكومه اليابانيه لدراسه الدكتوراه لمدته ثلاثه اعوام (اكتوبر ٢٠٠٩ إلى سبتمبر ٢٠١٢).
- ✓ مدرس مساعد بقسم الرياضيات - كلية العلوم بقنا – جامعه جنوب الوادي (اغسطس ٢٠٠٨ إلى سبتمبر ٢٠٠٩).
- ✓ معيد بقسم الرياضيات - كلية العلوم بقنا – جامعه جنوب الوادي (ديسمبر ٢٠٠٥ إلى يوليو ٢٠٠٨).

العنوان :

- قسم الرياضيات – كلية العلوم للبنات بأبها-جامعه الملك خالد – المملكه العربيه السعوديه
- بريد الكتروني: ababdallah@kku.edu.sa
- موبايل: 0551323276

الاهتمامات البحثيه:

- تحسين الطرق العدديه الحديثه
- طريقه الجزيئات الملساء للهيدروديناميكا (SPH method)
- طريقه العناصر المنتهيه (FEM)
- طريقه الفروق المنتهيه (FDM)
- طريقه الاحجام المنتهيه (FVM)
- ديناميكا الموائع الحسابيه:
- نمزجه ومحاكاة انسياب الموائع خلال الاشكال المختلفه.
- تصادم الموائع مع الاجسام الصلبه.
- الانتقال الحرارى والمادى خلال الاوساط المساميه
- تحسين الانتقال الحرارى والمادى للموائع باستخدام جزيئات النانو

الدراسه:

١. بكالوريوس علوم الرياضيات من جامعه جنوب الوادي يونيو ٢٠٠٤ بتقدير جيداً بنسبه ٨٠,٥%
٢. ماجستير علوم الرياضيات التطبيقيه من جامعه جنوب الوادي اغسطس ٢٠٠٨ عنوان الرساله: تأثير التفاعل الكيميائى على الانتقال الحرارى والمادى للانسياب فى الطبقة الحديه خلال الاوساط المساميه.
٣. دكتوراه علوم الرياضيات التطبيقيه من جامعه كيوشو باليابان سبتمبر ٢٠١٢ عنوان الرساله: تحسين طريقه الجزيئات الملساء للموائع الغير قابله للانضغاط لمحاكاة تصادمات الموائع بالتربه والاجسام الصلبه.

المهارات:

- ✓ البرمجه بلغه الفورتران بامتياز
- ✓ البرمجه على التوازي على الأجهزة فائقه السرعه
- ✓ عمل نماذج عدديه فى ثلاث ابعاد باستخدام البرامج الهندسيه المتخصصه

الخبرات فى التدريس:

- التحليل العددى - الطرق العدديه الحديثه.
- التفاضل والتكامل ١ – التفاضل والتكامل ٢
- ديناميكا الموائع – ميكانيكا الأجسام الساكنه – ديناميكا الأجسام المتحركه
- المعادلات التفاضليه العاديه – المعادلات التفاضليه الجزئيه – المعادلات التكامليه
- التفاضل – التفاضل الجزئى – التكامل – التكامل الثنائى
- نظريه المجالات – نظريه المرونه – الطرق الرياضيه
- البرمجه باستخدام الفورتران – البرمجه على التوازي

الجمعيات

- ✓ عضو عامل فى الجمعية السعوديه للعلوم الإحصائية
- ✓ عضو فى جمعية الرياضيات المصريه

المنح والجوائز:

- جائزة الدولة التشجيعية (جمهورية مصر العربية) فى علوم الرياضيات – ٢٠١٧.
 - جائزة النشر العلمى – جامعه جنوب الوادى للأعوام الدراسيه ٢٠١٢- ٢٠١٤ , ٢٠١٥- ٢٠١٦, ٢٠١٧-2018
 - منحه الحكومه اليابانيه (MEXT) للحصول على الدكتوراه من اكتوبر ٢٠٠٩ الى سبتمبر ٢٠١٢
 - منحه للدراسه بعد الدكتوراه مموله من معمل تطبيقات ديناميكا الموائع لمدته ٨ ثمانيه أشهر فى كوريا الجنوبيه
 - منحه للدراسه بعد الدكتوراه مموله من الحكومه اليابانيه (JSPS) لمدته عامين فى اليابان.
 - منحه للدراسه بعد الدكتوراه مموله من معمل تطبيقات ديناميكا الموائع لمدته ١١ احدى عشر شهرا فى كوريا الجنوبيه
- انشطه اخرى: محرر ومحكم فى اكثر من مجله دوليه

Editorial Board Services

- Editorial Member of the journal “Pure and Applied Mathematics Journal”
- Editorial Member of the journal “Applied and Computational Mathematics”
- Editorial Member of the journal “American Journal of Applied Mathematics”
- Editorial Member of the journal “JOURNAL OF MODERN METHODS IN NUMERICAL MATHEMATICS”
- Editorial Member of the Journal of Advances in Applied & Computational Mathematics.

Reviewing Services

- Reviewer in ٢٠ international journals

النشر العلمى

Publication links for the google scholar citation:

<http://scholar.google.com/citations?user=uVclOJEAAA&hl=en>

- 1) **Abdelraheem M. Aly**, and Mitsuteru Asai. "Water entry of decelerating spheres simulations using improved ISPH method." Journal of Hydrodynamics 30.6 (2018): 1120-1133.
- 2) **Abdelraheem M. Aly**, and Z. A. S. Raizah. "Incompressible smoothed particle hydrodynamics (ISPH) method for natural convection in a nanofluid-filled cavity including rotating solid structures." International Journal of Mechanical

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- 3) **Abdelraheem M. Aly**, Z. A. S. Raizah, and Sameh Elsayed Ahmed. "NATURAL CONVECTION IN AN ENCLOSURE SATURATED WITH MULTILAYER POROUS MEDIUM AND NANOFLUID OVER CIRCULAR CYLINDERS: ENTROPY GENERATION." *Journal of Porous Media* 21.10 (2018).
- 4) ZAS Raizah, **AM Aly**, SE Ahmed, Natural convection flow of a power-law non-Newtonian nanofluid in inclined open shallow cavities filled with porous media, *International Journal of Mechanical Sciences*, 140, pp. 376-393, 2018.
- 5) **AM Aly**, ZAS Raizah, SE Ahmed, Mixed Convection in a Cavity Saturated with Wavy Layer Porous Medium: Entropy Generation, *Journal of Thermophysics and Heat Transfer*, pp. 1-17, 2018.
- 6) **AM Aly**, SE Ahmed, ZAS Raizah, DOUBLE-DIFFUSIVE NATURAL CONVECTION IN A SQUARE POROUS CAVITY WITH SINUSOIDAL DISTRIBUTIONS SIDE WALLS FILLED WITH A NANOFLUID, *Journal of Porous Media*, vol. 21 (2), pp. 101-122, 2018.
- 7) Minh Tuan Nguyen, **Abdelraheem M. Aly** and Sang-Wook Lee, ISPH modeling of natural convection heat transfer with an analytical kernel renormalization factor, *Meccanica*, 2018.
- 8) Minh Tuan Nguyen, **Abdelraheem M. Aly** and Sang-Wook Lee, A numerical study on unsteady natural/mixed convection in a cavity with fixed and moving rigid bodies using the ISPH method, *International Journal of Numerical Methods for Heat & Fluid Flow*, Vol. 28 No. 3, 2018, pp. 684-703
- 9) Minh Tuan Nguyen, **Abdelraheem M. Aly** and Sang-Wook Lee, Improved wall boundary conditions in the incompressible smoothed particle hydrodynamics method, *International Journal of Numerical Methods for Heat & Fluid Flow*, Vol. 28 No. 3, 2018, pp. 704-725.
- 10) **Abdelraheem M. Aly**, Natural Convection over Circular Cylinders in a Porous Enclosure Filled with a Nanofluid under Thermo-Diffusion Effects, *Journal of the Taiwan Institute of Chemical Engineers*, Volume 70, 2017, Pages 88–103
- 11) **Abdelraheem M. Aly**, DOUBLE-DIFFUSIVE NATURAL CONVECTION IN A NON-DARCY POROUS CAVITY FILLED WITH NANOFLUID UNDER THE EFFECTS OF CHEMICAL REACTION, *Journal of Porous Media*, 20(2) (2017) 111-126.
- 12) Minh Tuan Nguyen, **Abdelraheem M. Aly** and Sang-Wook Lee, Effect of wavy interface on natural convection of a nanofluid in a cavity saturated with a partially layered non-Darcy porous medium using ISPH method, *NUMERICAL HEAT TRANSFER, PART A*, 2017, VOL. 72, NO. 1, 68–88
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- 14) **Abdelraheem M. Aly**, Ali Chamkha, Sang-Wook Lee, and Ali Al-Mudhaf, "On Mixed Convection in an Inclined Lid-Driven Cavity with Sinusoidal Heated Walls

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الكتب:

- 1) **Abdelraheem M. Aly** and Mitsuteru Asai, DOUBLE-DIFFUSIVE NATURAL CONVECTION WITH CROSS-DIFFUSION EFFECTS IN AN ANISOTROPIC POROUS ENCLOSURE USING ISPH METHOD, Accepted for publication in book, "Mass Transfer" BOOK EDITOR: Marek Solecki; INTECH Publish.
- 2) M.A. Mansour, N.F. El-Anssary, **A. M. Aly**, Rama Subba Gorla. Chemical Reaction and MHD Effects on Free Convection Flow Past an Inclined Surface in a Porous Medium, **Progress in Porous Media Research**, Nova science publishers, pp. 503-524) https://www.novapublishers.com/catalog/product_info.php?products_id=8793&osCsid=0582d6f05c3b5d76a9ab97cdd53ecb33
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المؤتمرات والندوات:

- 1) **Abdelraheem M. Aly**, Natural/Mixed convection in a non-Darcy porous cavity filled with nanofluid using improved incompressible smoothed particle hydrodynamics (ISPH) method, First international conference of mathematics & its applications, Abha, 26-27 March, King Khalid Univrsity, Saudi Arabia, 2018.
- 2) **Abdelraheem M. Aly**, Minh Tuan Nguyen, Sang-Wook Lee, Improved Wall Boundary Conditions in Incompressible Smoothed Particle Hydrodynamics Method Using Analytical Kernel Renormalization, International Conference on Computational Methods in Engineering and Health Sciences, 17-18 December, 2016 (ICCMEH-2016), KitaKyushu, Japan.
- 3) **Abdelraheem M. Aly**, Minh Tuan Nguyen, Sang-Wook Lee, Unsteady Natural/Mixed Convection in Cavity with Fixed and Moving Rigid Body Using ISPH Method, ISERD - International Conference on Recent Innovations in Engineering and Technology (ICRIET) Cairo, Egypt. 6th-7th July, 2016. (**Excellent paper award**)
- 4) **Abdelraheem M. Aly**, Minh Tuan Nguyen, Sang-Wook Lee, "Nonlinear Free Surface Flow Simulations Using Smoothed Particle Hydrodynamics". The 17th International Conference on Computational Fluid Dynamics, Barcelona, Spain, Oct. 26, 2015.
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