



UNIVERSITAS GADJAH MADA

Faculty of Mathematics and Natural Sciences

Department of Mathematics

Sekip Utara Bulaksumur Yogyakarta 55281 Telp: +62 274 552243 Fax: +62 274 555131 Email: math@ugm.ac.id Website: <http://math.fmipa.ugm.ac.id>

STAFF HANDBOOK

Name	<i>Indah Emilia Wijayanti</i>		
Post	<i>Algebra (Mathematics)</i>		
Academic career	Professorship Inaugural Speech: <i>Penelitian dan Peranan Aljabar Abstrak dalam Perkembangan Ilmu Pengetahuan di Masa Kini dan Mendatang</i>	<i>UGM</i>	<i>2020</i>
	Doctorate: <i>Coprime Comodules</i>	<i>Heinrich Heine University of Duesseldorf</i>	<i>2006</i>
	Magister: <i>Bentuk Jordan dan Terapannya</i>	<i>UGM</i>	<i>1998</i>
	Undergraduate degree: <i>Teori Sistem Matematika</i>	<i>UGM</i>	<i>1993</i>
Employment	<i>Lecturer and researcher</i>	<i>Department of Mathematics UGM</i>	<i>1994 - now</i>
Research and development projects over the last 5 years	<ol style="list-style-type: none"> Fundamental Research Grant : Sifat-sifat Submodul Prima-S(N) Lokal dalam Modul Multiplikasi-S(N) dan Dualisasinya, 2015-2017 (Indah Emilia Wijayanti (PI), Salmah) 375.000.000 IDR. International Collaboration Research Grant : Derived Equivalence for Hopf Algebras, 2016-2018 (Muchtadi Intan Detiena, Indah Emilia Wijayanti, Dellavitha Nasution, Alexander Zimmermann) 450.000.000 IDR. Post Graduate Research Grant : Representasi Grup dan Ring pada Modul atas Daerah Ideal Utama dan Aplikasinya pada Masalah Pengkodean, 2017-2019 (Sri Wahyuni, Indah Emilia Wijayanti) 450.000.000 IDR Fundamental Research Grant : Dualisasi Submodul Prima Lemah dan Submodul Kedua Lemah dalam Komodul atas Koaljabar (Indah Emilia Wijayanti (PI), Sri Wahyuni, Dian Ariesta Yuwaningsih) 250.000.000 IDR Doctoral Dissertation Research Grant : Komodul Bersih dan Komodul Pertukaran, 2019 - 2020 (Indah Emilia Wijayanti (PI), Budi Surodjo, Nikken Prima Puspita) 110.000.000 IDR Magister Thesis Research Grant : Idealizer dan Ring Konteks Morita, 2019 (Indah Emilia Wijayanti (PI), Sri Wahyuni, Kholida Khoirunnisa, Novita Dahoklory) 50.000.000 IDR World Class Professor Type B Grant : Pengembangan Kerjasama Riset <i>Order pada Ring dan Modul</i> Sebagai Usaha Meningkatkan Kompetensi Peneliti dan Kualitas Penelitian di Laboratorium Aljabar FMIPA UGM, 2019 (Indah Emilia Wijayanti) 150.000.000 IDR Magister Thesis Research Grant : Penerapan Topologi Aljabar di Bidang Biologi Molekuler, 2020 (Indah Emilia Wijayanti (PI), Valentino Risali) 60.000.000 IDR PMSU Research Grant : Pendefinisian Modul Order Maksimal dalam Modul Fraksi, 2020-2022 (Indah Emilia Wijayanti (PI), Sri Wahyuni, Mu'amar Musa Nurwigantara) 210.000.000 IDR 		



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	<p>10. Post Doctoral Research Grant : Tinjauan Ring Konteks Morita Sebagai Radikal Jacobson, 2020-2021 (Indah Emilia Wijayanti (PI), Puguh Wahyu Prasetyo) 120.000.000 IDR</p> <p>11. Post Doctoral Research Grant : Bialjabar Bersih dan Modul Hopf Bersih, 2021 (Indah Emilia Wijayanti (PI), Nikken Prima Puspita) 40.000.000 IDR.</p> <p>12. Collaboration Research Grant : Sistem Kriptografi NTRU Matriks atas Bilangan Bulat Gauss Yang Dilengkapi dengan Tanda Tangan Digital, 2022 (Indah Emilia Wijayanti (PI), Anny Kartika Sari) 50.000.000 IDR</p> <p>13. Recognition Research Grant : Beberapa Sifat r-Bimodul Bersih-r Kiri, 2022 (Indah Emilia Wijayanti (PI), Dian Ariesta Yuwaningsih) 70.000.000 IDR</p> <p>14. Post Doctoral Research Grant : f-Derivation Prime Modules, 2022 (Indah Emilia Wijayanti (PI), Fitriani) 75.000.000 IDR.</p> <p>15. Fundamental Research Grant (Regular) : Menyelidiki Dampak Keprimaan pada Koderivasi Koaljabar dan Komodul, 2023 (Indah Emilia Wijayanti (PI), Nikken Prima Puspita) 81.000.000 IDR.</p>		
Industry collaborations over the last 5 years	<p><i>Project title : Research in Cryptography (since 2020)</i> <i>Partners : Sandhiguna Widya Proteksi, Politeknik Siber dan Sandi Negara, Pusandiad Mabes TNI-AD.</i></p>		
Patents and proprietary rights	<p><i>Aljabar I</i></p> <p><i>Teori Ring dan Teori Modul</i></p> <p><i>Dasar-Dasar Aljabar Linear dan Penggunaannya dalam Berbagai Bidang</i></p>	<p><i>Indah Emilia Wijayanti, Sri Wahyuni, Dian Ariesta Yuwaningsih (UT)</i></p> <p><i>Sri Wahyuni, Indah Emilia Wijayanti, Dian Ariesta Yuwaningsih, Ari Dwi Hartanto (GMU Press)</i></p> <p><i>Indah Emilia Wijayanti, Sri Wahyuni, Yeni Susanti (GMU Press)</i></p>	<p>2017</p> <p>2016</p> <p>2015</p>
Important publications over the last 5 years	<p>Selected recent publications from a total of approx. 52 :</p> <p>[1] Hijriati, N., Wijayanti, I.E., Surodjo, B., Wahyuni, S., Munandar, A., 2023, A Module Theory Approach on Generalization of Maschke Theorem and Schur's Lemma in Representation Theory, <i>Southeast Asian Bulletin of Mathematics</i> 47 (1), 73-81.</p> <p>[2] Yuwaningsih, D.A., Wijayanti, I.E., Surodjo, B., 2023, On r-Clean Ideals, <i>Palestine Journal of Mathematics</i>, accepted.</p> <p>[3] Cahyati, E.S., Wijayanti, I.E., 2023, Total Graph of Module With Respect to Multiplicative-Semiprime Subsets, <i>The Aligarh Bulletin of Mathematics</i>, accepted.</p> <p>[4] Anwar, Y.S., Wijayanti, I.E., Surodjo, B., Sari, D.K., 2023, On Topological M-Injective Modules, <i>Topology and its Applications</i> 334, 10 pages.</p> <p>[5] Fitriani, Wijayanti, I.E., Surodjo, B., Wahyuni, S., Faisol, A., 2023, A Generalization of Projective Module, <i>Journal of Mathematics Research</i> Vol. 16 no 1.</p> <p>[6] Puspita, N., Wijayanti, I.E., Surodjo, B., 2023, Some Sufficient Conditions of Clean Comodules, <i>The Aligarh Bulletin of Mathematics</i> Vol. 41 No. 2.</p>		



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	<p>[7] Nurwigantara, M.M., Wijayanti, I.E., Marubayashi, H., Wahyuni, S., 2022, Krull modules and completely integrally closed modules, <i>Journal of Algebra and Its Applications</i> Vol. 21, No. 1, 2350038 (14 pages).</p> <p>[8] Wijayanti, I.E., Marubayashi, H., Ernanto, I., Sutopo, 2022, Arithmetic Modules over Generalized Dedekind Domains, <i>Journal of Algebra and its Applications</i> Vol. 21, No. 3 (2022) 2250045 (14 pages).</p> <p>[9] Wijayanti, I.E., Ardiyansyah, M., Prasetyo, P.W., 2021, On Class of λ-Modules, <i>Ukrainian Mathematical Journal</i> Vol. 73 No 3, 384 – 390.</p> <p>[10] Wijayanti, I.E., Marubayashi, H., Ernanto, I., Sutopo, 2020, Finitely Generated Torsion-free Modules over Integrally Closed Domains, <i>Communications in Algebra</i> 48(8), pp. 3597–3607.</p> <p>[11] Wijayanti, I.E., Marubayashi, H., Sutopo, 2020, Positively Graded Rings Which are Maximal Orders and Generalized Dedekind Prime Rings, <i>Journal of Algebra and Its Applications (JAA)</i> 19 (8), 2050143.</p> <p>[12] Wijayanti, I.E., Yuwaningsih, D.A., Salmah, 2019, On $S(0)$-Weakly Second Submodules, <i>Asian-European Journal of Mathematics (AEJM)</i> vol 12 No 5, 1950072 (7 pages).</p> <p>[13] Wijayanti, I.E., Marubayashi, H., Ernanto, I., Ueda, A., 2019, Strongly Graded Rings which are Krull Rings, <i>International Electronic Journal of Algebra</i> Vol 25, 2019, 120 – 128.</p> <p>[14] Wahyuni, S., Wijayanti, I.E., France-Jackson, H., 2017, A Prime Essential Ring that Generates a Special Atom, <i>Bull. Aust. Math. Soc.</i> Vol. 95, 214–218.</p>		
<p>Activities in specialist bodies over the last 5 years</p>	<ol style="list-style-type: none"> 1. <i>Indonesian Mathematical Society</i> 2. <i>Journal of Indonesian Mathematical Society</i> 3. <i>Department of Mathematics UGM</i> 4. <i>Department of Mathematics UGM</i> 5. <i>Indonesian Algebra Society</i> 	<p><i>President</i></p> <p><i>Editor in Chief</i></p> <p><i>Head of Algebra Research Group</i></p> <p><i>Secretary of Department</i></p> <p><i>Steering Committee</i></p>	<p><i>2020 – 2022 and 2022 - 2024</i></p> <p><i>2020 – 2025</i></p> <p><i>2022 - 2025</i></p> <p><i>2016 – 2021</i></p> <p><i>2020 - now</i></p>