DAFTAR PUSTAKA

Abbas, G., Sabiullah, U., 2014, Geodesic study of regular Hayward black hole, *Astrophysics and Space Science*, Vol. 352, DOI: 10.1007/s10509-014-1992-x.

Akiyama, K., Alberdi, A., Alef, W., Algaba, J.C., Anantua, R., Asada, K., Azulay, R., Bach, U., Baczko, A.-K., Ball, D., Baloković, M., Bandyopadhyay, B., Barrett, J., Bauböck, M., Benson, B.A., Bintley, D., Blackburn, L., Blundell, R., Bouman, K.L., Bower, G.C., Boyce, H., Bremer, M., Brissenden, R., Britzen, S., Broderick, A.E., Broguiere, D., Bronzwaer, T., Bustamante, S., Carlstrom, J.E., Chael, A., Chan, C., Chang, D.O., Chatterjee, K., Chatterjee, S., Chen, M.-T., Chen, Y., Cheng, X., Cho, I., Christian, P., Conroy, N.S., Conway, J.E., Crawford, T.M., Crew, G.B., Cruz-Osorio, A., Cui, Y., Dahale, R., Davelaar, J., De Laurentis, M., Deane, R., Dempsey, J., Desvignes, G., Dexter, J., Dhruv, V., Dihingia, I.K., Doeleman, S.S., Dzib, S.A., Eatough, R.P., Emami, R., Falcke, H., Farah, J., Fish, V.L., Fomalont, E., Ford, H.A., Foschi, M., Fraga-Encinas, R., Freeman, W.T., Friberg, P., Fromm, C.M., Fuentes, A., Galison, P., Gammie, C.F., García, R., Gentaz, O., Georgiev, B., Goddi, C., Gold, R., Gómez-Ruiz, A.I., Gómez, J.L., Gu, M., Gurwell, M., Hada, K., Haggard, D., Hesper, R., Heumann, D., Ho, L.C., Ho, P., Honma, M., Huang, C.-W.L., Huang, L., Hughes, D.H., Ikeda, S., Violette Impellizzeri, C.M., Inoue, M., Issaoun, S., James, D.J., Jannuzi, B.T., Janssen, M., Jeter, B., Jiang, W., Jiménez-Rosales, A., Johnson, M.D., Jorstad, S., Jones, A.C., Joshi, A. V., Jung, T., Karuppusamy, R., Kawashima, T., Keating, G.K., Kettenis, M., Kim, D.-J., Kim, J.-Y., Kim, Jongsoo, Kim, Junhan, Kino, M., Koay, J.Y., Kocherlakota, P., Kofuji, Y., Koch, P.M., Koyama, S., Kramer, C., Kramer, J.A., Kramer, M., Krichbaum, T.P., Kuo, C.-Y., La Bella, N., Lee, S.-S., Levis, A., Li, Z., Lico, R., Lindahl, G., Lindqvist, M., Lisakov, M., Liu, J., Liu, K., Liuzzo, E., Lo, W.-P., Lobanov, A.P., Loinard, L., Lonsdale, C.J., Lowitz, A.E., Lu, R.-S., MacDonald, N.R., Mao, J., Marchili, N., Markoff, S., Marrone, D.P., Marscher, A.P., Martí-Vidal, I., Matsushita, S., Matthews, L.D., Medeiros, L., Menten, K.M., Mizuno, I., Mizuno, Y., Montgomery, J., Moran, J.M., Moriyama, K., Moscibrodzka, M., Mulaudzi, W., Müller, C., Müller, H., Mus, A., Musoke, G., Myserlis, I., Nagai, H., Nagar, N.M., Nakamura, M., Narayanan, G., Natarajan, I., Nathanail, A., Fuentes, S.N., Neilsen, J., Ni, C., Nowak, M.A., Oh, J., Okino, H., Olivares, H., Oyama, T., Özel, F., Palumbo, D.C.M., Paraschos, G.F., Park, J., Parsons, H., Patel, N., Pen, U.-L., Pesce, D.W., Piétu, V., PopStefanija, A., Porth, O., Prather, B., Psaltis, D., Pu, H.-Y., Ramakrishnan, V., Rao, R., Rawlings, M.G., Raymond, A.W., Rezzolla, L., Ricarte, A., Ripperda, B., Roelofs, F., Romero-Cañizales, C., Ros, E., Roshanineshat, A., Rottmann, H., Roy, A.L., Ruiz, I., Ruszczyk, C., Rygl, K.L.J., Sánchez, S., Sánchez-Argüelles, D., Sánchez-Portal, M., Sasada, M., Satapathy, K., Savolainen, T., Schloerb, F.P., Schonfeld, J., Schuster, K.-F., Shao, L., Shen, Z., Small, D., Sohn, B.W., SooHoo, J., Salas, L.D.S., Souccar,

K., Stanway, J.S., Sun, H., Tazaki, F., Tetarenko, A.J., Tiede, P., Tilanus, R.P.J., Titus, M., Toma, K., Torne, P., Toscano, T., Traianou, E., Trent, T., Trippe, S., Turk, M., van Bemmel, I., van Langevelde, H.J., van Rossum, D.R., Vos, J., Wagner, J., Ward-Thompson, D., Wardle, J., Washington, J.E., Weintroub, J., Wharton, R., Wielgus, M., Wiik, K., Witzel, G., Wondrak, M.F., Wong, G.N., Wu, Q., Yadlapalli, N., Yamaguchi, P., Yfantis, A., Yoon, D., Young, A., Younsi, Z., Yu, W., Yuan, F., Yuan, Y.-F., Anton Zensus, J., Zhang, S., Zhao, G.-Y., Zhao, S.-S., Allardi, A., Chang, S.-H., Chang, C.-C., Chang, S.-C., Chen, C.-C., Chilson, R., Faber, A., Gale, D.M., Han, C.-C., Han, K.-C., Hasegawa, Y., Hernández-Rebollar, J.L., Huang, Y.-D., Jiang, H., Jinchi, H., Kimura, K., Kubo, D., Li, C.-T., Lin, L.C.-C., Liu, C.-T., Liu, K.-Y., Lu, L.-M., Martin-Cocher, P., Meyer-Zhao, Z., Montaña, A., Moraghan, A., Moreno-Nolasco, M.E., Nishioka, H., Norton, T.J., Nystrom, G., Ogawa, H., Oshiro, P., Pradel, N., Principe, G., Raffin, P., Rodríguez-Montoya, I., Shaw, P., Snow, W., Sridharan, T.K., Srinivasan, R., Wei, T.-S., Yu, C.-Y., 2024, The persistent shadow of the supermassive black hole of M 87, *Astronomy & Astrophysics*, Vol. 681, Hal. A79, DOI: 10.1051/0004-6361/202347932.

Anugraha, R., 2011, *Teori Relativitas dan Kosmologi*, Edisi I, FMIPA Universitas Gadjah Mada, Yogyakarta.

Ayón-Beato, E., García, A., 2000, The Bardeen model as a nonlinear magnetic monopole, *Physics Letters B*, Vol. 493, Hal. 149–152, DOI: 10.1016/S0370-2693(00)01125-4.

Bambi, C., 2018, *Introduction to General Relativity: A Course for Undergraduate Students of Physics*, Book.

Bambi, C. (Ed.), 2023, *Regular Black Holes*, Springer Series in Astrophysics and Cosmology, Springer Nature Singapore, Singapore.

Bekenstein, J.D., 1973, Black holes and entropy, *Physical Review D*, Vol. 7, DOI: 10.1103/PhysRevD.7.2333.

Bonanno, A., Khosravi, A.P., Saueressig, F., 2021, Regular black holes with stable cores, *Physical Review D*, Vol. 103, DOI: 10.1103/PhysRevD.103.124027.

Bonanno, A., Khosravi, A.P., Saueressig, F., 2023, Regular evaporating black holes with stable cores, *Physical Review D*, Vol. 107, DOI: 10.1103/PhysRevD.107.024005.

Bonanno, A., Reuter, M., 2000, Renormalization group improved black hole spacetimes, *Physical Review D*, Vol. 62, Hal. 043008, DOI: 10.1103/PhysRevD.62.043008.

Boskoff, W.-G., Capozziello, S., 2024, *A Mathematical Journey to Relativity*, UNITEXT for Physics, Springer International Publishing, Cham.

Brady, P.R., Smith, J.D., 1995, Black hole singularities: A numerical approach,

Physical Review Letters, Vol. 75, DOI: 10.1103/PhysRevLett.75.1256.

Cadoni, M., Oi, M., Sanna, A.P., 2022, Effective models of nonsingular quantum black holes, *Physical Review D*, Vol. 106, DOI: 10.1103/PhysRevD.106.024030.

Calmet, X., 2015, *Quantum aspects of black holes*, Quantum Aspects of Black Holes.

Carballo-Rubio, R., Di Filippo, F., Liberati, S., Pacilio, C., Visser, M., 2018, On the viability of regular black holes, *Journal of High Energy Physics*, Vol. 2018, DOI: 10.1007/JHEP07(2018)023.

Cardoso, V., Lemos, J.P.S., Yoshida, S., 2004, Quasinormal modes of Schwarzschild black holes in four and higher dimensions, *Physical Review D*, Vol. 69, Hal. 044004, DOI: 10.1103/PhysRevD.69.044004.

Cardoso, V., Miranda, A.S., Berti, E., Witek, H., Zanchin, V.T., 2009, Geodesic stability, Lyapunov exponents, and quasinormal modes, *Physical Review D - Particles, Fields, Gravitation and Cosmology*, Vol. 79, DOI: 10.1103/PhysRevD.79.064016.

Carlip, S., 2014, Black hole thermodynamics, *International Journal of Modern Physics D*, Vol. 23, Hal. 48, DOI: https://doi.org/10.1142/S0218271814300237.

Carroll, S.M., 2019, *Spacetime and Geometry: An Introduction to General Relativity*, Spacetime and Geometry: An Introduction to General Relativity.

Charles W, M., Thorne, K.S., Wheller, J.A., 1973, *GRAVITATION*, W. H. FREEMAN AND COMPANY.

Churilova, M.S., 2019, Analytical quasinormal modes of spherically symmetric black holes in the eikonal regime, *The European Physical Journal C*, Vol. 79, Hal. 629, DOI: 10.1140/epjc/s10052-019-7146-0.

Cosenza, M., Herrera, L., Esculpi, M., Written, L., 1981, Some models o anisotropic spheres in general relativity, *Journal of Mathematical Physics*, Vol. 22, DOI: 10.1063/1.524742.

Czinner, V.G., Iguchi, H., 2016, Rényi entropy and the thermodynamic stability of black holes, *Physics Letters B*, Vol. 752, Hal. 306–310, DOI: 10.1016/j.physletb.2015.11.061.

Davis, M., Ruffini, R., Tiomno, J., 1972, Pulses of Gravitational Radiation of a Particle Falling Radially into a Schwarzschild Black Hole, *Physical Review D*, Vol. 5, Hal. 2932–2935, DOI: 10.1103/PhysRevD.5.2932.

De Lorenzo, T., Pacilio, C., Rovelli, C., Speziale, S., 2015, On the effective metric of a Planck star, *General Relativity and Gravitation*, Vol. 47, DOI: 10.1007/s10714-015-1882-8.

Dineen, S., 2002, *Multivariate calculus and geometry*, The Mathematical Gazette.

Dineen, S., 2014, *Multivariate Calculus and Geometry*, Springer Undergraduate Mathematics Series, Springer London, London.

Dymnikova, I., 1992, Vacuum nonsingular black hole, *General Relativity and Gravitation*, Vol. 24, DOI: 10.1007/BF00760226.

Fabbri, A., Navarro-Salas, J., 2005, *Modeling black hole evaporation*, Modeling Black Hole Evaporation.

Fan, Z.-Y., Wang, X., 2016, Construction of Regular Black Holes in General Relativity, DOI: 10.1103/PhysRevD.94.124027.

Ferrari, V., Mashhoon, B., 1984, New approach to the quasinormal modes of a black hole, *Physical Review D*, Vol. 30, DOI: 10.1103/PhysRevD.30.295.

Fisher, M.E., 1998, Renormalization group theory: Its basis and formulation in statistical physics, *Reviews of Modern Physics*, Vol. 70, DOI: 10.1103/revmodphys.70.653.

Flachi, A., Lemos, J.P.S., 2018, Quasinormal modes of regular black holes, *arXiv*, DOI: https://arxiv.org/pdf/1211.6212.

Frolov, V.P., 2016, Notes on nonsingular models of black holes, *Physical Review D*, Vol. 94, DOI: 10.1103/PhysRevD.94.104056.

Frolov, V.P., 2018, Remarks on non-singular black holes, *EPJ Web of Conferences*, Vol. 168, Hal. 01001, DOI: 10.1051/epjconf/201816801001.

Frolov, V.P., Novikov, I.D., 1998, *Black Hole Physics*, Fundamental Theories of Physics, Springer Netherlands, Dordrecht.

Frolov, V.P., Novikov, I.D., Isenberg, J.A., 2000, Black Hole Physics: Basic Concepts and New Developments , *Physics Today*, Vol. 53, DOI: 10.1063/1.1292486.

Gnedin, M.L., Gnedin, N.Y., 1993, Destruction of the Cauchy horizon in the Reissner-Nordstrom black hole, *Classical and Quantum Gravity*, Vol. 10, Hal. 1083–1102, DOI: 10.1088/0264-9381/10/6/006.

Grumiller, D., Sheikh-Jabbari, M.M., 2022, *Black Hole Physics*, Graduate Texts in Physics, Springer International Publishing, Cham.

Hartle, J.B., 2003, *GRAVITY An Introduction to Einstein`s General Relativity*, Pearson Education.

Hawking, S.W., 1975, Particle creation by black holes, *Communications in Mathematical Physics*, Vol. 43, DOI: 10.1007/BF02345020.

Hawking, S.W., Ellis, G.F.R., 1973, *The Large Scale Structure of Space-Time*, Cambridge University Press.

Hawking, S.W., Page, D.N., 1983, Thermodynamics of black holes in anti-de Sitter space, *Communications in Mathematical Physics*, Vol. 87, Hal. 577–588, DOI: 10.1007/BF01208266.

Hayward, S.A., 2006, Formation and evaporation of nonsingular black holes, *Physical Review Letters*, Vol. 96, DOI: 10.1103/PhysRevLett.96.031103.

Hossenfelder, S., Modesto, L., Prémont-Schwarz, I., 2010, Model for nonsingular black hole collapse and evaporation, *Physical Review D - Particles, Fields, Gravitation and Cosmology*, Vol. 81, DOI: 10.1103/PhysRevD.81.044036.

Islam, N., 2006, *Tensors and Their Applications*, NEW AGE INTERNATIONAL.

Khosravipoor, M.R., Farhoudi, M., 2023, Thermodynamics of deformed AdS-Schwarzschild black hole, *The European Physical Journal C*, Vol. 83, Hal. 1045, DOI: 10.1140/epjc/s10052-023-12222-2.

Kim, Y.-W., Kim, S.K., Park, Y.-J., 2016, Thermodynamic stability of modified Schwarzschild–AdS black hole in rainbow gravity, *The European Physical Journal C*, Vol. 76, Hal. 557, DOI: 10.1140/epjc/s10052-016-4393-1.

Konoplya, R., 2023, Hawking radiation of renormalization group improved regular black holes, Hal. 18, DOI: 10.48550/arXiv.2308.02850.

Lasota, J.-P., Gourgoulhon, E., Abramowicz, M., Tchekhovskoy, A., Narayan, R., 2014, Extracting black-hole rotational energy: The generalized Penrose process, *Physical Review D*, Vol. 89, Hal. 024041, DOI: 10.1103/PhysRevD.89.024041.

Lawrence, A., Martinec, E., 1996, String field theory in curved spacetime and the resolution of spacelike singularities, *Classical and Quantum Gravity*, Vol. 13, DOI: 10.1088/0264-9381/13/1/007.

Lim, Y.K., 2021, Null geodesics in the C metric with a cosmological constant, *Physical Review D*, Vol. 103, DOI: 10.1103/PhysRevD.103.024007.

Lobo, F.S.N., 2005, Energy conditions, traversable wormholes and dust shells, *General Relativity and Gravitation*, Vol. 37, Hal. 2023–2038, DOI: 10.1007/s10714-005-0177-x.

Mandal, R., Gangopadhyay, S., 2022, Black hole thermodynamics in asymptotically safe gravity, *General Relativity and Gravitation*, Vol. 54, Hal. 159, DOI: 10.1007/s10714-022-03045-9.

Mars, M., Martín-Prats, M.M., Senovilla, J.M.M., 1996, Models of regular Schwarzschild black holes satisfying weak energy conditions, *Classical and Quantum Gravity*, Vol. 13, DOI: 10.1088/0264-9381/13/5/003.

McLoughlin, T., Puhm, A., Raclariu, A.-M., 2022, The SAGEX review on scattering amplitudes Chapter 11: Soft Theorems and Celestial Amplitudes, *Journal of Physics A: Mathematical and Theoretical*, Vol. 55, Hal. 443012, DOI: 10.1088/1751-8121/ac9a40.

Modesto, L., 2004, Disappearance of the black hole singularity in loop quantum gravity, *Physical Review D*, Vol. 70, Hal. 124009, DOI: 10.1103/PhysRevD.70.124009.

NIELSEN, A.B., YEOM, D.-H., 2009, SPHERICALLY SYMMETRIC TRAPPING HORIZONS, THE MISNER–SHARP MASS AND BLACK HOLE EVAPORATION, *International Journal of Modern Physics A*, Vol. 24, Hal. 5261–5285, DOI: 10.1142/S0217751X09045984.

Palumbo, D.C.M., Wong, G.N., 2022, Photon Ring Symmetries in Simulated Linear Polarization Images of Messier 87*, *The Astrophysical Journal*, Vol. 929, DOI: 10.3847/1538-4357/ac59b4.

Parry, A.R., 2013, Wave Dark Matter and Dwarf Spheroidal Galaxies, *arXiv*, DOI: https://doi.org/10.48550/arXiv.1311.6087.

Pavón, D., 1991, Phase transition in Reissner-Nordström black holes, *Physical Review D*, Vol. 43, Hal. 2495–2497, DOI: 10.1103/PhysRevD.43.2495.

Penrose, R., 1965, Gravitational collapse and space-time singularities, *Physical Review Letters*, Vol. 14, DOI: 10.1103/PhysRevLett.14.57.

Pisano, F., Reis, N.., 2001, Natural units, numbers and numerical clusters, *arXiv*.

Press, W.H., 1971, Long Wave Trains of Gravitational Waves from a Vibrating Black Hole, *The Astrophysical Journal*, Vol. 170, Hal. L105, DOI: 10.1086/180849.

Purwanto, A., 2009, *PENGANTAR KOSMOLOGI*, ITS Press, Surabaya.

Rani, S., Jawad, A., Raza, H., Shaymatov, S., Muzaffar, M., Riaz, H., 2024, Thermodynamic properties and geometries of bardeen black hole surrounded by string clouds, *The European Physical Journal C*, Vol. 84, Hal. 904, DOI: 10.1140/epjc/s10052-024-13285-5.

Reuter, M., 2000, Renormalization group improved black hole spacetimes, *Physical Review D - Particles, Fields, Gravitation and Cosmology*, Vol. 62, DOI: 10.1103/PhysRevD.62.043008.

Rodrigues, M.E., Silva, M.V. de S., 2018, Bardeen Regular Black Hole With an Electric Source, *arXiv*.

Rumiyanti, L., Farchani Rosyid, M., 2016, Singularitas Ruang-Waktu Bermetrik De Sitter dalam Relativitas Umum, *JURNAL Teori dan Aplikasi Fisika*, Vol. 04.

Schutz, B., 2009, *A First Course in General Relativity*, A First Course in General Relativity.

Schutz, B.F., Will, C.M., 1985, Black hole normal modes - A semianalytic approach, *The Astrophysical Journal*, Vol. 291, Hal. L33, DOI: 10.1086/184453.

Singh, D.V., Siwach, S., 2019, On Thermodynamics and Statistical Entropy of Bardeen Black Hole, *arXiv*.

Snapper, E., Troyer, R.J., 1971, affine geometry, *Metric Affine Geometry*, Elsevier, Hal. 1–111.

Teo, E., 2003, Spherical Photon Orbits Around a Kerr Black Hole, *General Relativity and Gravitation*, Vol. 35, Hal. 1909–1926, DOI: 10.1023/A:1026286607562.

The Nobel Prize in Physics, 2020, The Nobel Prize in Physics 2020 was divided d, one half awarded to Roger Penrose "for the discovery that black hole formation is a robust prediction of the general theory of relativity", the other half jointly to Reinhard Genzel and Andrea Ghez "for the discovery of a supermassive compact object at the centre of https://www.nobelprize.org/prizes/physics/2020/summary/ Oktober-2024).

Tseytlin, A.A., 1995, On singularities of spherically symmetric backgrounds in string theory, *Physics Letters B*, Vol. 363, DOI: 10.1016/0370-2693(95)01228-7.

Wald, R.M., 1984, *General Relativity*, University of Chicago Press.

Walecka, J.D., 2007, *Introduction to general relativity*, Introduction to General Relativity, World Scientific Publishing Co.

Wang, G., Hu, G., Li, C., Tang, L., 2018, Long live the scientists: Tracking the scientific fame of great minds in physics, *Journal of Informetrics*, Vol. 12, DOI: 10.1016/j.joi.2018.08.008.

Will, C.M., 2014, The Confrontation between General Relativity and Experiment, *Living Reviews in Relativity*, Vol. 17, Hal. 4, DOI: 10.12942/lrr-2014-4.

Witten, E., 1998, Anti-de Sitter Space, Thermal Phase Transition, And Confinement In Gauge Theories, DOI: https://doi.org/10.48550/arXiv.hep-th/9803131.

Zhao, Y., Sun, B., Mai, Z.-F., Cao, Z., 2022, Quasi Normal Modes of Black Holes and Detection in Ringdown Process.