

## DAFTAR PUSTAKA

- Aisyah, N. (2013). *Kombinasi Model Mogi dan Yokoyama untuk Estimasi Lokasi Sumber Tekanan dan Volume Suplai Magma Gunung Merapi Periode 2011-2013*. Yogyakarta: Universitas Gadjah Mada
- Aldrian, E., Budiman., & Karmini, M. (2011). *Adaptasi dan Mitigasi Perubahan Iklim di Indonesia*. Jakarta: Pusat Perubahan Iklim dan Kualitas Udara Kedeputian Bidang Klimatologi, BMKG.
- Anchukaitis, K. J., Buckley, B. M., Cook, E. R., Cook, B. I., D'Arrigo, R. D., & Ammann, C. M. (2010). *Influence of volcanic eruptions on the climate of the asian monsoon region*. Geophysical Research Letters, 37, L22703. <https://doi.org/10.1029/2010gl044843>
- APEC (Asia-Pacific Economic Cooperation). (2017). Human Resource Development Working Group, Data Science and Analytics Skills Shortage: Equipping the APEC Workforce with the Competencies Demanded by Employers.
- Ashari, A. (2017). *Tekanan Atmosfer dan Sirkulasi Atmosfer Global*. Yogyakarta: Universitas Negeri Yogyakarta
- Ayris, P. M., & Delmelle, P. (2012). *The Immediate Environmental Effect of Tephra*. Bull Volcanol, 74:1905-1936.
- Bahlefi, A.R. (2013). *Analisis Deformasi Gunung Merapi Tahun 2012 Dari Data Pengamatan GPS*. Semarang: Universitas Diponegoro
- Balai Penyelidikan dan Pengembangan Teknologi Kebencanaan Geologi (BPPTKG). (2013). <http://www.merapi.blg.esdm.go.id/index.php>. Diakses pada tanggal 16 April 2018
- Barrow, Gordon M. (1988). *Physical chemistry 5<sup>th</sup> Edition*. New York: McGraw-Hill. [urn:lcp:physicalchemistry00gord\\_0:lcpdf:ba3ef5cc-5fd8-43db-884b-a9c35edcebbf](urn:lcp:physicalchemistry00gord_0:lcpdf:ba3ef5cc-5fd8-43db-884b-a9c35edcebbf)
- Bemmelen, R.W. Van. (1949). *The Geology of Indonesia*, Martinus Nijhoff, The Hague. Netherland.
- Bemmelen, R.W. Van. (1970). *The Geology of Indonesia*. 2nd Edition, Martinus Nijhoff, The Hague

- Berthommier, P. (1990.) *Etude Vulkanologique du Merapi, Tephrostratigraphie et Chronologie Product Eruptifs*, These Universite Blaise Pascal, Clermont-Ferrand II, U.F.R de Recherche Scientifique et Technique
- Bird, P., (2003). *An updated digital model of plate boundaries*. Geochemistry, Geophysics, Geosystems, 4(3):1–52.
- BNPB. (2011). *Laporan Akhir Tanggap Darurat Bencana Letusan Gunung Merapi 2010 Satuan Tugas Nasional Penanggulangan Bencana Merapi*. Jakarta: BNPB.
- Bronto, Sutikno. (2000). *Vulkanik Bahaya Penilaian Gunung Krakatau, Selat Sunda Indonesia*. Buletin Geologi TataLingkungan, Vol. 2, 20-29
- Bronto, Sutikno. (2006). *Fasies Gunung Api dan Aplikasinya*. Jurnal Geologi Indonesia,Jil. 2(1), 59-71
- Brotopuspito, Kirbani Sri, Suratman, Pramumijoyo, Subagyo, Hadmoko, Danang Sri, Harijoko, Agung; & Suyanto, Wiwit. (2011). *Kajian Multi-Bahaya, Kerentanan, Risiko, Desain Tata Ruang Kawasan Rawan Bencana Merapi dan Implementasinya dalam Peningkatan Kapasitas dan Kesiapsiagaan Masyarakat Terhadap Bahaya Gunungapi*. Laporan Penelitian. Hibah Penelitian StrategiNasional Universitas Gadjah Mada.
- Burić, D., Mihajlović, J., & Ducić, V. (2022). *Anomalies of air pressure in Serbia as a result of the eruption of the volcano Hunga Tonga– Hunga Ha’apai in mid-January 2022*. Geoscience Letters, 9:40  
<https://doi.org/10.1186/s40562-022-00248-5>
- Cendawan Awan Panas Erupsi Gunung Merapi Tahun 1997 “Merapi Meletus”, Kompas, 18 Januari 1997, hlm. 1.
- Cengel, Y. A & Boles, M. A. (2018). *Thermodynamics: An Engineering Approach, 5th edition*.
- Colose, C. M., LeGrande, A. N., & Vuille, M. (2016). *The influence of volcanic eruptions on the climate of tropical South America during the last millennium in an isotope-enabled general circulation model*. Climate of the Past, 12(4), 961–979.
- Data Audio Kronologi Erupsi Gunung Merapi Tahun 1992 (Koleksi Ketep Vulcano Merapi).

- Data Info Umum Gunung Merapi (Koleksi Balai Penyelidikan dan Pengembangan Teknologi Kebencanaan Geologi).
- Data Kuncen Merapi (Koleksi Dinas Kebudayaan dan Pariwisata Kabupaten Sleman).
- Data Letusan Gunung Merapi Tahun 1984 (Koleksi Museum Gunung Merapi).
- Data Letusan Gunung Merapi Tahun 1992 (Koleksi Museum Gunung Merapi).
- Data Letusan Gunung Merapi Tahun 1994 (Koleksi Balai Penyelidikan dan Pengembangan Teknologi Kegunungapian dan Geologi).
- Data Letusan Gunung Merapi Tahun 1997 (Koleksi Balai Penyelidikan dan Pengembangan Teknologi Kegunungapian dan Geologi).
- Data Letusan Gunung Merapi Tahun 1998 (Koleksi Balai Penyelidikan dan Pengembangan Teknologi Kegunungapian dan Geologi).
- Data Letusan Gunung Merapi Tahun 2001 (Koleksi Balai Penyelidikan dan Pengembangan Teknologi Kegunungapian dan Geologi).
- Data Letusan Gunung Merapi Tahun 2006 (Koleksi Balai Penyelidikan dan Pengembangan Teknologi Kegunungapian dan Geologi).
- Data Merapi: Gunung Api Strato (Koleksi Museum Gunung Merapi).
- Dickinson, W.R., (1971). *Plate tectonic models of geosynclines*. Earth and Planetary Science Letters, 10: 165–174, [https://doi.org/10.1016/0012-821X\(71\)90002-1](https://doi.org/10.1016/0012-821X(71)90002-1)
- Driscoll, S., Bozzo, A., Gray, L. J., Robock, A., & Stenchikov, G. (2012). *Coupled model intercomparison project 5 (CMIP5) simulations of climate following volcanic eruptions*. Journal of Geophysical Research, 117, D17105. <https://doi.org/10.1029/2012jd017607>
- Fathaero, F. (2020). *Gaya Coriolis dan Ekman*. Bandung: Universitas Padjajaran.
- Foto Aktivitas Gunung Merapi Berangsur Normal “Status Gunung Merapi Berangsur Jadi Siaga”, Kompas, 13 Februari 1992, hlm. 13.
- Foto Bunker Kaliadem tertimbun lava erupsi Merapi tahun 2006 (Koleksi Ketep Vulcano Merapi).
- Foto Desa-desa yang hancur akibat letusan Merapi pada 2010. (BPPTKG)
- Foto Erupsi Gunung Merapi Tahun 1994 (Koleksi Badan Geologi-PVMBG).
- Foto Erupsi Gunung Merapi Tahun 1998 (Koleksi Badan Geologi-PVMBG).

Foto Erupsi Gunung Merapi Tahun 2001 “Gunung Merapi Meletus”, Kompas, 18 Februari 2001, hlm. 12.

Foto Erupsi Gunung Merapi Tahun 2006 (Koleksi Badan Geologi-PVMBG).

Foto Sebaran Awan Panas Letusan Gunung Merapi Tahun 1984 (Koleksi Ketep Vulcano Merapi)

Gertisser, R., Charbonnier, S., Keller, J., & Quidelleur, X. (2012). *The geological evolution of Merapi volcano, Central Java, Indonesia*. Bull Volcanol. 74:1213–1233

Gillett, N. P., Weaver, A. J., Zwiers, F. W., & Wehner, M. F. (2004). *Detection of volcanic influence on global precipitation*. Geophysical Research Letters, 31(12), L12217. <https://doi.org/10.1029/2004gl020044>

Grinsted, A., Moore, J. C., & Jevrejeva, S. (2007). *Observational evidence for volcanic impact on sea level and the global water cycle*. Proceedings of the National Academy of Sciences of the United States of America, 104(50), 19730–19734.

Gu, G., Adler, R. F., Huffman, G. J., & Curtis, S. (2007). *Tropical rainfall variability on interannual-to-interdecadal and longer time scales derived from the GPCP monthly product*. Journal of Climate, 20, 4033–4046. <https://doi.org/10.1175/JCLI4227.1>

Hamilton, W. (1979). *Tectonics of the Indonesian region*. United States Geological Survey Professional Paper, p. 1078.

Han, M. Kamber & J. Pei. (2012). *Data Mining Concepts and Techniques 3rd Ed.*, USA: The Morgan Kaufman.

<https://cds.climate.copernicus.eu/cdsapp#!/dataset/reanalysis-era5-land-monthly-means?tab=form> (diakses pada 10 November 2023 pukul 10:00)

<https://elshinta.com/news/283025/2022/10/26/26-oktober-2010-gunung-merapi-erupsi-ratusan-orang-tewas-termsuk-juru-kunci-merapi> (diakses pada 22 Desember 2023 pukul 19:36)

<https://id.weatherspark.com/y/121494/Cuaca-Rata-rata-pada-bulan-in-DI-Yogyakarta-Indonesia-Sepanjang-Tahun> (diakses pada 20 Juni 2024 pukul 15:40)

<https://www.kompas.id/baca/nusantara/2021/06/14/misteri-erupsi-gunung-merapi->

- [2006/](#) (diakses pada 22 Desember 2023 pukul 19:30)  
[https://www.researchgate.net/publication/276867093\\_SEJARAH LETUSAN GUNUNG MERAPI BERDASARKAN FASIES GUNUNGAPI DI DAE RAH ALIRAN SUNGAI BEDOG DAERAH ISTIMEWA YOGYAKA RTA](https://www.researchgate.net/publication/276867093_SEJARAH LETUSAN GUNUNG MERAPI BERDASARKAN FASIES GUNUNGAPI DI DAE RAH ALIRAN SUNGAI BEDOG DAERAH ISTIMEWA YOGYAKA RTA) [accessed May 01 2024 pukul 15:30].
- <https://www.tribunnews.com/regional/2010/10/31/inilah-kronologi-letusan-gunung-merapi-30-oktober-2010> (diakses pada 22 Desember 2023 pukul 19:45)
- Hurrell, J. W., Holland, M. M., Gent, P. R., Ghan, S., Kay, J. E., Kushner, P. J., et al. (2013). The community Earth system model: A framework for collaborative research. *Bulletin of the American Meteorological Society*, 94(9), 1339–1360. <https://doi.org/10.1175/BAMS-D-12-00121.1>
- Ika. (2023). *Pakar UGM Sebut Erupsi Merapi Tidak Berdampak Pada Cuaca di Jogja*. Yogyakarta: Universitas Gadjah Mada.  
<https://ugm.ac.id/id/berita/23548-pakar-ugm-sebut-erupsi-merapi-tidak-berdampak-pada-cuaca-di-jogja/> (diakses pada 13 Agustus 2023 pukul 15.00 WIB)
- Iles, C. E., & Hegerl, G. C. (2014). The global precipitation response to volcanic eruptions in the CMIP5 models. *Environmental Research Letters*, 9(10), 104012. <https://doi.org/10.1088/1748-9326/9/10/104012>
- Iles, C. E., & Hegerl, G. C. (2015). Systematic change in global patterns of streamflow following volcanic eruptions. *Nature Geoscience*, 8(11), 838–842. <https://doi.org/10.1038/ngeo2545>
- Iles, C. E., Hegerl, G. C., Schurer, A. P., & Zhang, X. (2013). The effect of volcanic eruptions on global precipitation. *Journal of Geophysical Research: Atmospheres*, 118(16), 8770–8786. <https://doi.org/10.1002/jgrd.50678>
- Isacks, B., Oliver, J., & Sykes, L. R., (1968). *Seismology and The New Global Tectonics*. *Journal of Geophysical Research.* 17, 18:5855-5899.  
<https://doi.org/10.1029/JB073i018p05855>
- Koesoemadinata. (1979). Data Dasar Gunungapi Indonesia. Direktorat Vulkanologi, *Vulcanological Survey of Indonesia*.
- Kusumayudha. (1988). *Laporan Tahunan P3G 1980/1981*. Indonesia.

- Laila, Fajriyatul. (2018). *Erupsi Gunung Merapi: Perubahan Sosial Dan Adaptasi Masyarakat Di Kabupaten Sleman Tahun 1984-2010*. Skripsi. Universitas Dipenogoro.
- Linkedin, (2020). Canada Emerging Jobs, 2020.
- Linkedin, (2020). Emerging Jobs Report Australia, 2020.
- Linkedin, (2020). Emerging Jobs Report Indonesia, 2020.
- Linkedin, (2020). Emerging Jobs Report Malaysia, 2020.
- Linkedin, (2020). Emerging Jobs Report Singapore, 2020.
- Linkedin, (2020). US Jobs Trends, 2020.
- Lutgens, Frederick K. & Tarbuck, Edward J. (2014). *The Atmosphere 13 edt: An Introduction To Meteorology*. USA: Pearson Education, Inc.
- Man, W., Zuo, M., Zhou, T., Fasullo, J. T., Bethke, I., Chen, X., Zou, L., & Wu, B. (2020). *Potential Influences of Volcanic Eruptions on Future Global Land Monsoon Precipitation Changes*. Earth's Future Volume 9 Issue 3
- McGuire WJ. (1992). *Monitoring active volcanoes: procedures and prospects*. Proc the Geol Assoc 103(4):303–320.
- McKinsey & Co, Analytics comes of age, New York, NY, USA, 2018.
- Moertini, V, S., & Adithina, M, T. (2020). *Pengantar Data science dan Aplikasi nya bagi Pemula*. UNPAR PRESS. Bandung: Indonesia, ISBN: 978-623-7879-15-2.
- Morgan, J, P., & Vannucchi, P. (2023). *Energetics of the Solid Earth:Implications for the Structureof Mantle Convection*. Dalam buku: Dynamics of Plate Tectonics and Mantle Convection: 35:66.
- Mori, S.A. & de Granville, J.-J. (1997). *Saül region, French Guiana In: Davis, S.D., Heywood, V.H., Herrera-MacBryde, O., Villa-Lobos, J. & Hamilton, A.C. (eds.),Centres of Plant Diversity: A guide and strategy for their conservation. Volume 3: The Americas*. The World Wide Fund for Nature (WWF) and IUCN – The World Conservation Union.
- Mori, S.A., Cremers, G., Gracie, C., de Granville, J.-J., Hoff, M. & Mitchell, J.D. (1997). *Guide to the Vascular Plants of Central French Guiana. Part 1. Pteridophytes, Gymnosperms, and Monocotyledons*. Mem. New York Bot.Gard. 76(1): 1-422.

- Nadia, L. (2020). *Modul 01 Termodinamika*. Jakarta: Universitas Terbuka
- NASA Earth Data – Open access for open science (2022) Explosive Eruption of Hunga Tonga–Hunga Ha’apai Volcano.  
<https://earthdata.nasa.gov/worldview/worldview-image-archive/explosive-eruption-of-hunga-tonga-hunga-ha-apai-volcano>
- NASA Earth Observatory (2022) Dramatic Changes at Hunga Tonga–Hunga Ha’apai. <https://earthobservatory.nasa.gov/images/149367/dramatic-changes-at-hunga-tonga-hunga-haapai>
- Pannekoek, A.J. 1949. *Outline of the Geomorphology of Java, reprint from tijdschrift van het Koninklijk Nederlandsch Aardrijkskundig geneootschap*, vol. LXVI, part 3, E.J.Brill, Leiden.
- Permadi, U.W., Setyawan, A., & Nurdien, I. (2016). *Interpretasi Bawah Permukaan Gunung Merapi Dengan Analisa Gradient Dan Pemodelan 2d Data Gayaberat*. Youngster Physics Journal, 5(4), 433-440
- Plummer, C, C., Carlson, D, H., Hammersley, L. (2016). *Physical geology (15th Edition)*. Mc Graw Hill Education.
- Pratomo, I. (2006). *Klasifikasi Gunung Api Aktif Indonesia, Studi Kasus Dari Beberapa Letusan Gunung Aktif Dalam Sejarah*. Jurnal Geologi Indonesia, 1(4), 209-227
- Pratomo, I. (2014). *Klasifikasi gunung api aktif Indonesia, studi kasus dari beberapa letusan gunung api dalam sejarah*. Indonesian Journal on Geoscience, 1(4), 209–227. <https://doi.org/10.17014/ijog.vol1no4.20065>
- Pusat Vulkanologi dan Mitigasi Bencana Geologi (PVMBG). (2013). *Data Dasar Gunungapi Indonesia*. Bandung: Departement Energi dan Sumber Daya Mineral. Badan Geologi, Pusat Vulkanologi dan Mitigasi Bencana Geologi
- Rafferty, J. (2007). *Buys Ballot's law atmospheric science*. Dalam web: (<https://www.britannica.com/science/Buys-Ballots-Law>)
- Reksowiyo, L.D. (1974). *Data Dasar Gunung Api Indonesia*. Bandung: Pusat Sumber Daya Geologi.
- Schneider, D. P., Ammann, C. M., Otto-Bliesner, B. L., & Kaufman, D. S. (2009). *Climate response to large, high-latitude and low-latitude volcanic eruptions in the community climate system model*. Journal of Geophysical Research, 114, D15101.

- Sidik. (2010). *Letusan Gunung Berapi Mengubah Pola Curah Hujan*. Artikel ANTARA. Dalam web (<https://www.antaranews.com/berita/232306/letusan-gunung-berapi-mengubah-pola-curah-hujan>)
- Smithsonian Institution (2022) *Global Volcanism Program, Report on Hunga Tonga-Hunga Ha'apai (Tonga)*. In: Bennis KL, Venzke E (eds) Bulletin of the Global Volcanism Network, vol 47, p 3. [https://volcano.si.edu/showreport.cfm?doi=10.5479/si.GVP.BGVN2022032\\_43040](https://volcano.si.edu/showreport.cfm?doi=10.5479/si.GVP.BGVN2022032_43040)
- Stevenson, S., Otto-Bliesner, B., Fasullo, J., & Brady, E. (2016). “*El niño like*” hydroclimate responses to last millennium volcanic eruptions. *Journal of Climate*, 29(8), 2907–2921. <https://doi.org/10.1175/jcli-d-15-0239.1>
- Sukandarrumidi. (1978). *Bahan Kuliah Lapangan Kulon Progo*. Yogyakarta: Teknik Geologi UGM.
- Surono., Jousset, P., Pallister, J., Boichu, M., Buongiorno, F. M., Budisantoso, A., Costa, F., Andreastuti, S., Prata, F., Schneider, D., Clarisse, L., Humaida, H., Sumarti, S., Bignami, C., Griswold, J., Carn, S., Oppenheimer, C., & Lavigne, F. (2012). *The 2010 Explosive Eruption Of Java's Merapi Volcano—A '100-Year' Event*. *Journal of Volcanology and Geothermal Research* 241–242 (2012) 121–135
- Suyanto, I. (2011). *Pemodelan Bawah Permukaan Gunung Merapi dan Merbabu Berdasarkan Analisis Data Gravitasi*. Laporan Penelitian Universitas Gajah Mada
- Suyanto, I. (2012). *Pemodelan Bawah Permukaan Gunung Merapi dari Analisis Data Magnetik dengan Menggunakan Software Geosoft*. Yogyakarta: Universitas Gadjah Mada.
- Tantri, E. (2014). *The Krakatau Explosion (1883): The Impacts On 1888 Social Movement In Banten*. *Jurnal Masyarakat & Budaya*, 16 (1).
- Timmreck, C. (2012). *Modeling the climatic effects of large explosive volcanic eruptions*. *Wiley Interdisciplinary Reviews-Climate Change*, 3(6), 545–564. <https://doi.org/10.1002/wcc.192>
- Trenberth, K. E., & Dai, A. (2007). *Effects of mount pinatubo volcanic eruption on the hydrological cycle as an analog of geoengineering*. *Geophysical Research*

- Letters, 34(15), L15702. <https://doi.org/10.1029/2007gl030524>
- Van Vuuren, D. P., Edmonds, J., Kainuma, M., Riahi, K., Thomson, A., Hibbard, K., et al. (2011). *The representative concentration pathways: An overview*. Climatic Change, 109, 5. <https://doi.org/10.1007/s10584-011-0148-z>
- Voight, B., Constantine, E.K., Sismowidjoyo, S., Torley, R., (2000). *Historical Eruptions of Merapi Volcano, Central Java, Indonesia, 1768–1998*. Journal of Volcanology and Geothermal Research 100, 69–138.
- Voight, B., Young, K.D., Hidayat, D., Subandrio, Purbawinata, M.A., Ratdomopurbo, A., Suharna, Panut, Sayudi, D.S., LaHusen, R., Marso, J., Murray, T.L., Dejean, M., Iguchi, M., Ishihara, K., (2000). *Deformation and Seismic Precursors to Domecollapse and Fountain-Collapse Nuées Ardentes at Merapi Volcano, Java, Indonesia, 1994–1998*. Journal of Volcanology and Geothermal Research 100, 261–288.
- Wang, B., & Ding, Q. (2006). *Changes in global monsoon precipitation over the past 56 years*. Geophysical Research Letters, 33(6), L0671. <https://doi.org/10.1029/2005gl025347>
- Wang, B., Liu, J., Kim, H.-J., Webster, P. J., & Yim, S.-Y. (2012). *Recent change of the global monsoon precipitation (1979–2008)*. Climate Dynamics, 39(5), 1123–1135. <https://doi.org/10.1007/s00382-011-1266-z>
- Wang, P., Wang, B., Cheng, H., Fasullo, J. T., Guo, Z., Kiefer, T., & Liu, Z. J. (2014). *The global monsoon across timescales*. Coherent Variability of Regional Monsoons, 10(6), 2007–2052. <https://doi.org/10.5194/cp-10-2007-2014>
- Yang, L., Gao, Y., Gao, C., & Liu, F. (2022). *Climate responses to Tambora-size volcanic eruption and the impact of warming climate*. Geophysical Research Letters, 49, e2021GL097477.