Dr Alonso Vicente Pizarro Valdebenito BSc MSc PhD

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After completing his BEng and MSc studies at University of Concepcion (Chile), Alonso joined the University of Basilicata, Italy, in September 2015 as a PhD student, supported by the Erasmus Mundus programme (ref. 552129-EM-1-2014-1-IT-ERA MUNDUS-EMA21). Despite his short academic career (he awarded his PhD in March 2019), Alonso has already published several scientific contributions, attracting a significant number of citations. Alonso has a broad interest in hydrology, hydraulics, sediment transport, flood prediction, extreme flood events, stochastic processes in hydrology, environmental monitoring using Unmanned Aerial Systems (UASs), and remote sensing applications for fluvial monitoring. Alonso utilises advanced surveying and flow measurement techniques and laboratory experiments. He is proficient in advanced programming languages (Matlab and Python) and GIS software (QGIS), which he uses to manipulate and analyse complex datasets, regularly publishing research articles in leading international journals. In addition, he speaks four different languages: Spanish (mother tongue), Italian (fluent), English (fluent), and German (basic), and thanks to his experience in different academic environments, he has acquired the capacity to fast adapt to new situations through a proactive and flexible approach. Finally, Alonso has also received a prize for his BEng Thesis, and he has already demonstrated the ability to attract funding for his researches from different sources. Currently, Alonso is Assistant Professor of Hydrology and Hydraulic Engineering at Universidad Diego Portales (Chile).

- **Personal Information**

Name: Pizarro Valdebenito, Alonso Vicente

Nationality: Chilean

Date of birth: 27/10/1989

Researcher unique identifiers: SCOPUS Author ID: 16449058000; ORCID ID: 0000-0002-7242-6559

- **Work Experience**

03/2023 – To date	**Start-up creation – Chair of Research and Development division**
	AtMind, Santiago, Chile.
07/2021 – To date	**Assistant Professor of Hydrology and Hydraulic Engineering**
	Universidad Diego Portales, Department of Civil Engineering – Santiago, Chile.
10/2020 – 06/2021	**Postdoctoral Researcher**
	University of Naples Federico II, Department of Civil, Architectural and Environmental Engineering – Naples 80138, Italy.
10/2019 – 10/2020	**Postdoctoral Researcher**
	University of Basilicata, Department of European and Mediterranean Cultures: Architecture, Environment, and Cultural Heritage (DICEM) – Matera 75100, Italy.

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- **Education**

19/09/2015 – 21/03/2019   **PhD in Cities and Landscapes (Water management and hydrology)**

     (final mark 100/100 magna cum laude)

     University of Basilicata, Department of European and Mediterranean Cultures: Architecture, Environment, and Cultural Heritage (DICEM) – Matera 75100, Italy.

01/08/2013 – 14/09/2015   **MSc in Civil & Environmental Engineering (final mark 100/100 magna cum laude)**

     University of Concepción, Department of Civil Engineering, Concepción 4030000, Chile.

03/03/2008 – 30/04/2012   **BSc in Civil Engineering (final mark 100/100 magna cum laude)**

     University of Concepción, Department of Civil Engineering, Concepción 4030000, Chile.

- **Study/Research visits**

21/06/2018 – 07/07/2018   **Visiting PhD researcher**

     Institution: University of Concepción, Department of Civil Engineering, Concepción, Chile.

     Goal of the Visit: Modelling bridge pier scour under flood waves considering field measurements and theoretical aspects.

11/09/2017 – 30/03/2018   **Visiting PhD researcher**

     Institution: National Technical University of Athens, Department of Water Resources and Environmental Engineering, Athens, Greece.

     Goal of the Visit: Modelling the river discharge process from a stochastic point of view: Synthetic generation of streamflow values and applications to bridge scour.

01/08/2012 – 31/07/2013   **Visiting MSc student (DAAD Scholarship)**

     Institution: Technical University of Braunschweig, Braunschweig, Germany.

- **Fellowships and Awards**

19/09/2015 – 21/03/2019   **PhD Scholarship, Erasmus Mundus programme** (ref. 552129-EM-1-2014-1-IT-ERA MUNDUS-EMA21).

19/06/2017 – 23/06/2017   **International Summer School Scholarship:** *"Geocomputation using free and open source software"*. Three grants out of about 20 participants.

11/07/2016 – 15/07/2016   **International Summer School Scholarship:** *"Applied course on UAVs for environmental monitoring"*. Three grants out of about 20 participants.

14/12/2015   ***"Edgar Pino"* Award:** Best thesis in the year 2015. Department of Civil Engineering, University of Concepción. One award per year out of about 70 participants.

01/08/2013 – 14/09/2015   **Master Scholarship,** Department of Civil Engineering, University of Concepción. They are awarded only to the best students, based on their BEng qualifications.

01/08/2012 – 31/07/2013	**Deutscher Akademisher Austaush Dienst (DAAD) Scholarship** (grant ref. A1271553). It is awarded only to the best students over the world.

- **Teaching Activities**

2025-02	**Hydrology (Undergraduate level).** Universidad Diego Portales, Chile.
2025-02	**Hydraulic Engineering (Undergraduate level).** Universidad Diego Portales, Chile.
2025-01	**Hydraulic Bridge Design (Master level).** Universidad Diego Portales, Chile.
2025-01	**Hydrological Modelling (Master level).** Universidad Diego Portales, Chile.
2024-02	**Hydrological Modelling (Master level).** Universidad Diego Portales, Chile.
2024-02	**Hydrology (Undergraduate level).** Universidad Diego Portales, Chile.
2024-01	**Hydrological Modelling (Master level).** Universidad Diego Portales, Chile.
2023-02	**Hydrolgical Modelling (Master level).** Universidad Diego Portales, Chile.
2023-02	**Mountain Hydrology (Master level).** Universidad Diego Portales, Chile.
2023-02	**Bridge Engineering (Master level).** Universidad Diego Portales, Chile.
2023-02	**Research Methods for Civil Engineers (Master level).** Universidad Diego Portales, Chile.
2023-01	**Research Methods for Civil Engineers (Master level).** Universidad Diego Portales, Chile.
2023-01	**Data Analysis for Geoscience (Master level).** Universidad Diego Portales, Chile.
2023-01	**Bridge Engineering (Master level).** Universidad Diego Portales, Chile.
2022-02	**Hydraulic Engineering (Undergraduate level).** Universidad Diego Portales, Chile.
2022-02	**Hydrological Modelling (Master level).** Universidad Diego Portales, Chile.
2022-01	**Hydraulic Engineering (Undergraduate level).** Universidad Diego Portales, Chile.
2022-01	**Hydrological Modelling (Master level).** Universidad Diego Portales, Chile.
2021-02	**Hydraulic Engineering (Undergraduate level).** Universidad Diego Portales, Chile.
2021-02	**Water Resources Modelling (Master level).** Universidad Diego Portales, Chile.
2020-02	**Visiting lecturer in *Ingegneria dei sistemi idraulici e dei trasporti* (Master level). Course: *Bonifiche e Sistemazioni Idrauliche.*** University of Naples Federico II, Italy.

- **Projects**

2024 – to date	**FLOOD RESILIENCE (*FONDECYT de iniciación)*.** Reference project number: 11240171. Principal Investigator: Alonso Pizarro (Universidad Diego Portales, Chile).
2023 – to date	***Microsoft ISV Success program Public Preview***. Coordinators: Matías García, Mateo Serna, Alonso Pizarro (AtMind, Chile).

2023 – 2023	***ArOC - Sistema de Inteligencia Hidrológica para el Manejo Integrado de Cuencas (SIHMIC).*** Reference project number: Factoria SEED 2023 (UDP). <u>Coordinator</u>: Claudio Magrini (Universidad Diego Portales, Chile).
2022 – 2023	***Early warning system for drought management of ground water surface water systems in Chilean Patagonia.*** Reference project number: FSEQ210010. <u>Coordinator</u>: Felipe Aguilar Sandoval (Aysen University, Chile).
2022 – 2023	***Monitoreo de Ríos en Patagonia bajo Cambio Acelerado Usando Sensores basados en Análisis de Imágenes, Ultrasonido y Láser.*** Reference project number: FOVI210055. <u>Coordinator</u>: Gerard Olivar Tost (Aysen University, Chile).
2022 – 2022	***Hidráulica Online.*** Reference project number: Concurso Cursos Semipresenciales/Canvas UDP. <u>Coordinator</u>: Prof. Alonso Pizarro (Universidad Diego Portales, Chile).
2022 – 2022	***Bridge Erosion CriticAL Modelling (BE-CALM).*** Reference project number: Proyecto inserción en la investigación UDP (grant no. 1100327026). <u>Coordinator</u>: Prof. Alonso Pizarro (Universidad Diego Portales, Chile).
2021 – 2022	***INNOVAción docenTE Hidraulica* (INNOVATE HIDRAULICA).** Reference project number: INNOVATE HIDRAULICA. <u>Coordinator</u>: Prof. Alonso Pizarro (Universidad Diego Portales, Chile).
2020 – 2021	***An integrative information aqueduct to close the gaps between global satellite observation of water cycle and local sustainable management of water resources (iAqueduct).*** Reference project number: iAqueduct. <u>Coordinator</u>: Prof. Zhongbo (Bob) Su (University of Twente, Netherlands).
2018 – 2022	***Harmonisation of UAS techniques for agricultural and natural ecosystems monitoring* (HARMONIOUS).** Reference project number: CA COST Action CA16219. <u>Coordinator</u>: Prof. Salvatore Manfreda (University of Naples Federico II, Italy).
2015 – 2019	***Euro-Latin America partnership in natural Risk mitigation and protection of the Cultural Heritage* (ELARCH)**. <u>Coordinator</u>: Prof. Michelangelo Laterza (University of Basilicata, Italy).
2018	***Monitoring of the infiltration state of Soils in Semiarid Environments*** (Cooperation project between Italy and Iran funded by CRUI, 2017). Visiting researcher at Ferdowsi University of Mashhad, Mashhad, Iran. <u>Coordinator</u>: Prof. Salvatore Manfreda (University of Naples Federico II, Italy).
2017 – 2018	***Bridge Pier Scour Under Flood Waves***. Reference project number: Fondecyt 1150997. <u>Coordinator</u>: Prof. Oscar Link (University of Concepcion, Chile).

- **Conference Organisation**
  - Second young Chilean hydrology days. January 09-10, 2025, Chillán, Chile.
  - First young Chilean hydrology days. January 08, 2024, Santiago, Chile.
  - Second congress of eco-hydrology for Latin America and the Caribbean national conference. November 15-18, 2023, Santiago, Chile
  - Convener of EGU 2023 session: *"HS1.1.2 Advances in river monitoring and modelling for a climate emergency"*.
  - Convener of EGU 2022 entitled *"HS1.1 – Advances in river monitoring and modelling for a climate emergency: data-scarce environments, real-time approaches, inter-comparison of innovative and classical frameworks, uncertainties, harmonisation of methods and good practices"*.
  - Convener of EGU 2021 session entitled *"HS1.1.2 – Advances in river monitoring and modelling for a climate emergency: data-scarce environments, real-time approaches, inter-comparison of innovative and classical frameworks, uncertainties, harmonisation of methods and good practices"*.
  - Primary convener of EGU 2020 session entitled *"HS1.1.4 – Advances in river monitoring and modelling: data-scarce environments, real-time approaches, Inter-comparison of innovative and classical frameworks, uncertainties, Harmonisation of methods and good practices"*.

- **Invited Talks**
  - Keynote speaker at the international conference Gravel Bed Rivers 9, session 12: New tools for advanced studies of gravel-bed rivers. Title of the talk *"The use of innovative technology for fluvial monitoring"* (13th January 2023. Villarrica, Chile).
  - Keynote speaker at *XVI Jornadas de Hidráulica Francisco Javier Domínguez*, 17-18 November 2022, Santiago, Chile.
  - Presentation at webinar organised by the EU-COST *HARMONIOUS* project on *"Flood ExtReme velOCity Estimations (FEROCE): Seeding metrics to image-velocimetry performances"* (June 4th 2020) https://t.co/BkAMWfD5BZ?amp=1

- **Professional Society Memberships**
  - Member of the European Geophysical Union (EGU).
  - Member of the International Association of Hydrological Sciences (IAHS).
  - Member of the Measurement and Observations in the 21st Century (MOXXI) group.
  - Member of the Italian Hydrological Society (SII-IHS).
  - Member of the Chilean Society of Hydraulic Engineering (SOCHID).
  - Member of the International Association for Bridge Maintenance and Safety (IABMAS).

- **Reviewer**
  - Journal of Hydrology (Elsevier)
  - Hydrological Sciences Journal (Taylor and Francis).

- Natural Hazards (Springer)
- River Research and Applications (Wiley).
- Canadian Journal of Civil Engineering (Canadian Science Publishing).
- Engineering Structures (Elsevier).
- Environmental Fluid Mechanics (Springer).
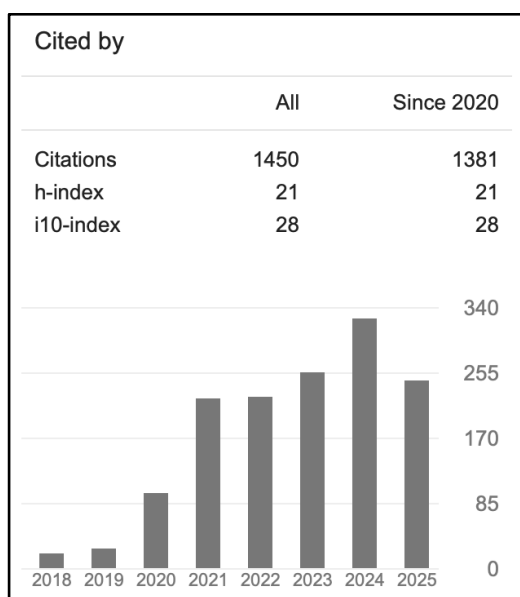- Hydrology (MDPI).
- Remote Sensing (MDPI).
- Water (MDPI).

- **Editorial Board and Guest Editor**
  - Member of the Editorial Board of Frontiers in Remote Sensing (2020 – to date).
  - Member of the Editorial Board of Drones and Autonomous Vehicles (2022 – to date).
  - Guest Editor, Special issue: "The Use of Unoccupied Aerials Systems and Vehicles for Precision Agriculture": https://www.frontiersin.org/research-topics/37962/the-use-of-unoccupied-aerials-systems-and-vehicles-for-precision-agriculture?utm_source=F-RTM&utm_medium=TED1&utm_campaign=PRD_TED1_T1_RT-TITLE
  - Guest Editor, Special issue: "Advances in River Monitoring": https://www.mdpi.com/journal/hydrology/special_issues/61A611C18A

- **Other activities**
  - Part of the expert panel of AQAS international accreditation of universities (2023: Civil Engineering Programme of Universidad San Sebastián, Chile).

- **List of Publications** (including citations from GoogleScholar - updated on 12/08/2025)**: h-index = 21**

Cited by	All	Since 2020
Citations	1450	1381
h-index	21	21
i10-index	28	28

International Journals:

1. Dal Sasso, S. F., **Pizarro, A.** et al. *"Evaluating SSIMS-Flow Velocimetry Performances Under Varying Seeding Densities: a Proof-of-Concept Field Study"*. Journal of Hydrology, [SUBMITTED]

2. Orieschnig, C., **Pizarro, A.** et al. *"Effective Science Communication In the Face of Water Crises : A Community Perspective on Challenges and Best-Practices in HELPING"*. Hydrological Sciences Journal, [SUBMITTED]

3. Dal Sasso, S. F., **Pizarro, A.** et al. *"Assessing the Performance of Single and Multi-Criteria Calibration Approaches for Hydrological Modelling: A Comparative Analysis"*. Hydrological Sciences Journal, [SUBMITTED]

4. **Pizarro, A.**, Koutsoyiannis, D., & Montanari, A. *"Combining uncertainty quantification and entropy-inspired concepts into a single objective function for rainfall-runoff model calibration"*. Hydrology and Earth System Sciences, [ACCEPTED]

5. **Pizarro, A.**, Koutsoyiannis, D., & Montanari, A. (2025). *"Combining uncertainty quantification and entropy-inspired concepts into a single objective function for rainfall-runoff model calibration"*. Hydrology and Earth System Sciences Discussions, 2025, 1-21, [preprint], https://doi.org/10.5194/hess-2024-389

6. González, R., **Pizarro, A.**, et al. (2025). *"Exploring climate-driven performance of floating photovoltaic systems: Energy production enhancement and evaporation reduction"*. Applied Energy, 386, 125556, https://doi.org/10.1016/j.apenergy.2025.125556

7. **Pizarro, A.**, et al. (2024). *"Past, present and future of the Hurst-Kolmogorov dynamics in Stochastics: A bibliometric analysis of the last 50 years in water resources"*. Journal of Hydrology, 643, 132008, https://doi.org/10.1016/j.jhydrol.2024.132008

8. **Pizarro, A.**, et al. (2024). *"The use of Unmanned Aerial Systems for river monitoring: A bibliometric analysis during the last 25 years"*. Hydrology, 11(6), 80, https://doi.org/10.3390/hydrology11060080

9. Pinto, F., **Pizarro, A.**, et al. (2024). *"Seismic fragility analysis of simply supported bridges considering uncertainty in scour condition"*. Structures, 64, 106570, https://doi.org/10.1016/j.istruc.2024.106570

10. Petermann-Rocha, F., **Pizarro, A.**, et al. (2024). *"Anthropometric evaluation through images: findings from the SCANNER software package"*. Nutrition, 125, 112499, https://doi.org/10.1016/j.nut.2024.112499

11. **Pizarro, A.** & Jorquera, J. (2024). *"Advancing objective functions in hydrological modelling: integrating knowable moments for improved simulation accuracy"*. Journal of Hydrology, 131071, https://doi.org/10.1016/j.jhydrol.2024.131071

12. Jorquera, J. & **Pizarro, A.** (2023). *"Unlocking the potential of BlueCat: Enhancing runoff predictions in arid and high-altitude regions"*. Hydrological Processes, 37(12), e15046, https://doi.org/10.1002/hyp.15046

13. Acuña, P. & **Pizarro, A.** (2023). *"Can continuous simulation be used as an alternative for flood regionalization? A large sample example from Chile"*. Journal of Hydrology, 626, 130118, https://doi.org/10.1016/j.jhydrol.2023.130118

14. García, M., Alcayaga, H., & **Pizarro, A.** (2023). *"Automatic Segmentation of Water Bodies Using RGB Data: A Physically Based Approach"*. Remote Sensing, 15(5), 1170, https://doi.org/10.3390/rs15051170

15. Faúndez, M., **Pizarro, A.** et al. (2023). *"Sustainability of water transfer projects: A systematic review"*. Science of The Total Environment, 160500, https://doi.org/10.1016/j.scitotenv.2022.160500

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16. **Pizarro, A.**, Dimitriadis, P. et al. (2022). *"Stochastic Analysis of the Marginal and Dependence Structure of Streamflows: From Fine-Scale Records to Multi-Centennial Paleoclimatic Reconstructions"*. Hydrology, 9(7), 126, http://dx.doi.org/10.3390/hydrology9070126

17. **Pizarro, A.**, Dal Sasso, S. F., & Manfreda, S. (2022). *"VISION: VIdeo StabilisatION using automatic features selection for image velocimetry analysis in rivers"*. SoftwareX, 19, 101173, http://dx.doi.org/10.1016/j.softx.2022.101173

18. Barraza-Moraga, F., **Pizarro, A.** et al. (2022). *"Estimation of Chlorophyll-a Concentrations in Lanalhue Lake Using Sentinel-2 MSI Satellite Images"*. Remote Sensing, 14(22), 5647, http://dx.doi.org/10.3390/rs14225647

19. Bello, D., **Pizarro, A.** et al. (2022) *"Influence of Dam Breach Parameter Statistical Definition on Resulting Rupture Maximum Discharge"*, Water, 14(11), 1776, https://doi.org/10.3390/w14111776

20. Tubaldi, E., **Pizarro, A.** et al. (2022) *"Invited perspectives: Challenges and future directions in improving bridge flood resilience"*, Nat. Hazards Earth Syst. Sci., 22, 795–812, https://doi.org/10.5194/nhess-22-795-2022

21. **Pizarro, A.** et al. (2022) *"Relative importance of parameters controlling scour at bridge piers using the new toolbox ScourAPP"*. Computers & Geosciences, 163(105117), https://doi.org/10.1016/j.cageo.2022.105117

22. Link, O. & **Pizarro, A.** (2022) *"Discussion of "Estimation of Exceedance Probability of Scour on Bridges Using Reliability Principles""*, Journal of Hydrologic Engineering (ASCE), https://doi.org/10.1061/(ASCE)HE.1943-5584.0002188

23. Paridad, P., **Pizarro, A.** et al. (2022) *"Estimation of soil moisture from UAS platforms using RGB and thermal imaging sensors in arid and semi-arid regions"*. ACTA Horticulturae, 1335(42):339-348, https://doi.org/10.17660/ActaHortic.2022.1335.42

24. Acharya, B. S., **Pizarro, A.** et al. (2021) *"Unmanned Aerial Vehicles in Hydrology and Water Management: Applications, Challenges, and Perspectives"*. Water Resources Research, 57(11), https://doi.org/10.1029/2021WR029925

25. Ljubičić, R., **Pizarro, A.** et al. (2021) *"A comparison of tools and techniques for stabilising unmanned aerial system (UAS) imagery for surface flow observations"*, Hydrol. Earth Syst. Sci., 25, 5105–5132, https://doi.org/10.5194/hess-25-5105-2021

26. Dal Sasso, S. F., **Pizarro, A.**, Manfreda, S. (2021) *"Recent Advancements and Perspectives in UAS-Based Image Velocimetry"*. Drones, 5(3), 81, https://doi.org/10.3390/drones5030081

27. Dal Sasso, **Pizarro, A.** et al. (2021) *"Increasing LSPIV performances by exploiting the seeding distribution index at different spatial scales"*. Journal of Hydrology, 598, 126438. https://doi.org/10.1016/j.jhydrol.2021.126438

28. Petermann-Rocha, F., **Pizarro, A.** et al. (2020) *"Optimal cut-off points for waist circumference in the definition of metabolic syndrome in Chile"*. Public Health Nutrition, 23(16), http://dx.doi.org/10.1017/S1368980020001469

29. Petermann-Rocha, F., **Pizarro, A.** et al. (2020) *"Is waist-to-height ratio a better predictor of hypertension and type 2 diabetes than body mass index and waist circumference in the Chilean population?"*. Nutrition, http://dx.doi.org/10.1016/j.nut.2020.110932

30. **Pizarro, A.** et al. (2020) *"Identifying the optimal spatial distribution of tracers for optical sensing of stream surface flow"*. Hydrology and Earth System Sciences (HESS), https://doi.org/10.5194/hess-24-5173-2020

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31. **<u>Pizarro, A.</u>**, Dal Sasso, S. F., Manfreda, S. (2020) *"Refining image-velocimetry performances for streamflow monitoring: Seeding metrics to errors minimisation"*. Hydrological Processes; 1–9. https://doi.org/10.1002/hyp.13919

32. Dal Sasso, S. F., **<u>Pizarro, A.</u>** et al. (2020) *"Metrics for the Quantification of Seeding Characteristics to Enhance Image Velocimetry Performance in Rivers"*. Remote Sensing, 12(11), 1789; https://doi.org/10.3390/rs12111789

33. Perks, M., **<u>Pizarro, A.</u>** et al. (2020) "*Towards harmonisation of image velocimetry techniques for river surface velocity observations*". Earth Syst. Sci. Data, 12, 1545–1559, https://doi.org/10.5194/essd-12-1545-2020

34. Manfreda, S., **<u>Pizarro, A.</u>** et al. (2020) "*Potential advantages of flow-area rating curves compared to classic stage-discharge-relations*". Journal of Hydrology, 124752, https://doi.org/10.1016/j.jhydrol.2020.124752

35. **<u>Pizarro A.</u>**, Manfreda, S., Tubaldi, E. (2020) *"The Science behind Scour at bridge Foundations: A Review"*. Water, 12(2), 374, https://doi.org/10.3390/w12020374

36. Pearce, S., **<u>Pizarro, A.</u>** et al. (2020) *"An Evaluation of Image Velocimetry Techniques under Low Flow Conditions and High Seeding Densities Using Unmanned Aerial Systems"*. Remote Sensing, 12(2), 232, https://doi.org/10.3390/rs12020232

37. Link, O., **<u>Pizarro, A.</u>** et al. (2020) *"Local Scour and Deposition at Bridge Piers during Floods"*. Journal of Hydraulic Engineering, 146(3), 04020003, https://doi.org/10.1061/(ASCE)HY.1943-7900.0001696

38. **<u>Pizarro, A.</u>** & Tubaldi, E. (2019). *"Quantification of modelling uncertainties in bridge scour risk assessment under multiple flood events"*. Geosciences, 9(10), 445, https://doi.org/10.3390/geosciences9100445

39. Gheybi, F., **<u>Pizarro, A.</u>** et al. (2019) *"Soil Moisture Monitoring in Iran by Implementing Satellite Data into the Root-Zone SMAR Model"* Hydrology, https://doi.org/10.3390/hydrology6020044

40. Manfreda, S., Link, O., **<u>Pizarro, A.</u>** (2018) *"A Theoretically Derived Probability Distribution of Scour Depth"*. Water 10.11 (2018): 1520, https://doi.org/10.3390/w10111520

41. Dal Sasso, S. F., **<u>Pizarro, A.</u>** et al. (2018) *"Exploring the optimal experimental setup for surface flow velocity measurements using PTV"*, Environmental Monitoring and Assessment, 190(8), 460; https://doi.org/10.1007/s10661-018-6848-3

42. **<u>Pizarro, A.</u>** et al. (2017) *"BRISENT: An entropy-based model for bridge-pier scour estimation under complex hydraulic scenarios"*. Water, 9(11), 889; https://doi.org/10.3390/w9110889

43. **<u>Pizarro, A.</u>** et al. (2017) *"Dimensionless Effective Flow Work for Estimation of Pier Scour Caused by Flood Waves"*. Journal of Hydraulic Engineering; https://doi.org/10.1061/(ASCE)HY.1943-7900.0001295

44. Link, O., **<u>Pizarro, A.</u>** et al. (2017) *"A model of bridge pier scour during flood waves"*. Journal of Hydraulic Research; https://doi.org/10.1080/00221686.2016.1252802

National Journals:

1. Petermann-Rocha, F., **Pizarro, A.**, et al. (2024). *"Disponibilidad y seguridad hídrica en el desarrollo de enfermedades crónicas no transmisibles: ¿Nuevos factores de riesgo?"*. Revista médica de Chile, 152(5), 643-644, http://dx.doi.org/10.4067/s0034-98872024000500643

2. Montiel, J., **Pizarro, A.** et al. (2023). *"En búsqueda de una salud sostenible en Chile: rol de la investigación interdisciplinaria"*. Revista médica de Chile, 150: 1689-1692., http://www.revistamedicadechile.cl/ojs/index.php/rmedica/article/view/10412

3. **Pizarro, A.** & Link, O. (2021). *"ScourAPP: un software de código abierto para docencia en socavación local"*. Revista SOCHID, 36, 1.

Books:

1. **Pizarro, A.** & Zambrano-Bigiarini, M. (2025) *"Fundamentos Probabilísticos de la Hidrología"*. ISBN: 978-956-423-367-3.

2. **Pizarro, A.** (2022) *"Texto de apoyo docente: Hidráulica"*. ISBN: 978-956-423-385-7.

Book Chapters:

3. **Pizarro, A.** et al. (2024) *"Urban river management by innovative monitoring"*, in *Managing Urban Rivers: From planning to practice* edited by Victor R. Shinde; https://doi.org/10.1016/B978-0-323-85703-1.00001-8

4. Strelnikova, D., **Pizarro, A.** et al. (2023) *"River flow monitoring with UAS"*, in *Unmanned Aerial Systems for Monitoring Soil, Vegetation, and Riverine Environments* edited by Salvatore Manfreda & Eyal Ben-Dor; https://www.elsevier.com/books/unmanned-aerial-systems-for-monitoring-soil-vegetation-and-riverine-environments/manfreda/978-0-323-85283-8

5. Bertalan, L., **Pizarro, A.** et al. (2023) *"Monitoring of river channel dynamics by UAS"*, , in *Unmanned Aerial Systems for Monitoring Soil, Vegetation, and Riverine Environments* edited by Salvatore Manfreda & Eyal Ben-Dor; https://www.elsevier.com/books/unmanned-aerial-systems-for-monitoring-soil-vegetation-and-riverine-environments/manfreda/978-0-323-85283-8

6. Manfreda, S., **Pizarro, A.** et al. (2019) *"New insights offered by UAS for river monitoring"*, in *Applications of Small Unmanned Aircraft Systems: Best Practices and Case Studies* edited by J. B. Sharma; https://doi.org/10.1201/9780429244117

Datasets:

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- **Graduated students**

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3. Moreno, Matías. (*in progress*, MSc). *"Desarrollo de una métrica espacialmente distribuida para la calibración de modelos hidrológicos (semi) distribuidos"*.

4. Jorquera. Joaquín. (*in progress*, MSc). *"Uso de una combinación multimodelo para la mejora en la predicción de escorrentía"*.

5. Felipe, Marco. (*in progress*, BSc). *"Simulación de escorrentía en Chile con enfoque en redes neuronales vs métodos convencionales"*.

6. Muñoz, Sebastián. (*in progress*, BSc). *"Influencia de la precipitación en la dinámica y respuesta sísmica del suelo zona norte-centro de chile"*.

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