



UN-GGIM:Americas

REGIONAL COMMITTEE OF UNITED NATIONS
ON GLOBAL GEOSPATIAL INFORMATION
MANAGEMENT FOR THE AMERICAS



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X SESSION

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October 18, 19 and 20 - 2023

Santiago de Chile, ECLAC

SIRGAS CHALLENGES

Geodetic Reference Framework for the Americas (GRFA)

SIRGAS

SIRGAS is the Geodetic Reference System for the Americas.

It is a Pan-American organization, made up of regional government agencies of geodesy and cartography, universities and research centers, which has the objective of defining, maintaining and enhancing the continental geodetic reference framework.

It was born at the “International Conference for the Definition of a Geocentric Reference System for South America”, held between October 4 and 7, 1993, in Asunción (Paraguay)



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GRFA

The current Working Group on the Geodetic Reference Framework for the Americas (GRFA) is coordinated by the President and Vice President of SIRGAS. Its main objective is to support Member States in their response to the United Nations General Assembly Resolution entitled “A global geodetic reference framework for sustainable development” (A/RES/69/2661) under the recommendations of the Subcommittee of Geodesy of the Committee of Experts on Global Geospatial Information Management (UN-GGIM SCoG) and the scientific guidelines issued by the International Association of Geodesy (IAG) and the Geodetic Reference System for the Americas (SIRGAS)



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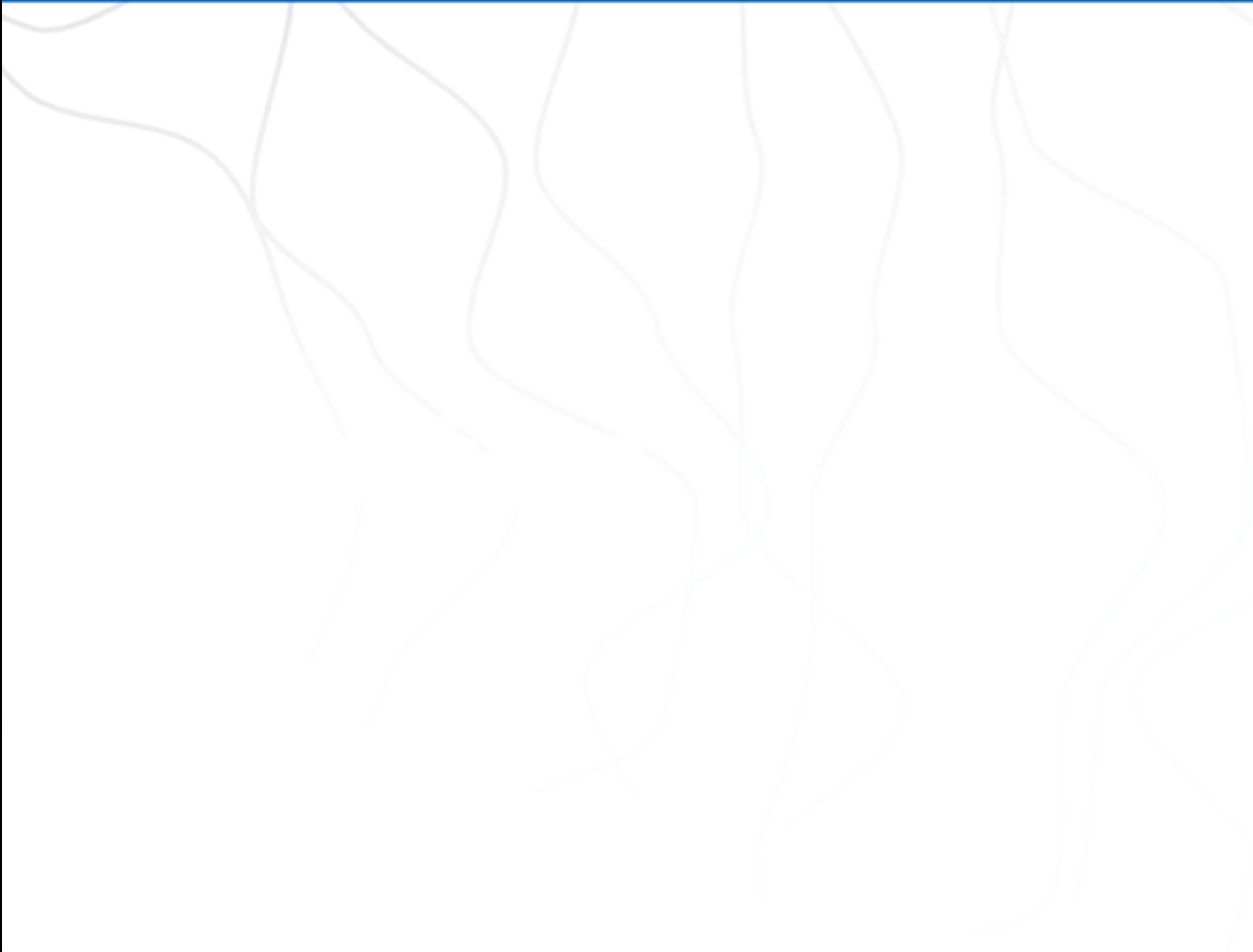
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La Geodesia en América del Sur antes de 1993

Se utilizaba la Geodesia Clásica

Un Sistema de Coordenadas y



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**Conferencia del
4 al 7 de Octubre
de 1993**

**Se comienza a
Unificar la
Geodesia**



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Primer Campaña SIRGAS 1995

Primer Datum
Geocéntrico para
América del Sur



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**Segunda
Campaña SIRGAS
2000**

**Extensión al Caribe,
América Central y
América del Norte**

**Se incluye estaciones cerca de
mareógrafos para determinar la
altura elipsoidal como
componente del sistema de
referencia vertical.**



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Goals

- ✓ *Promotion of standards within SIRGAS countries to ensure the proper installation, maintenance and analysis of GNSS stations in continuous operation.*
- ✓ *Establishment of a SIRGAS National Processing Center in all member countries.*
- ✓ *Promoting the appropriate use of SIRGAS as a reference framework through capacity development activities. It comprises SIRGAS schools on reference frames, scientific processing of GNSS data, atmospheric analysis based on the SIRGAS infrastructure, etc.*
- ✓ *Promotion and implementation of real-time services based on the SIRGAS infrastructure to make the reference framework available to more users.*



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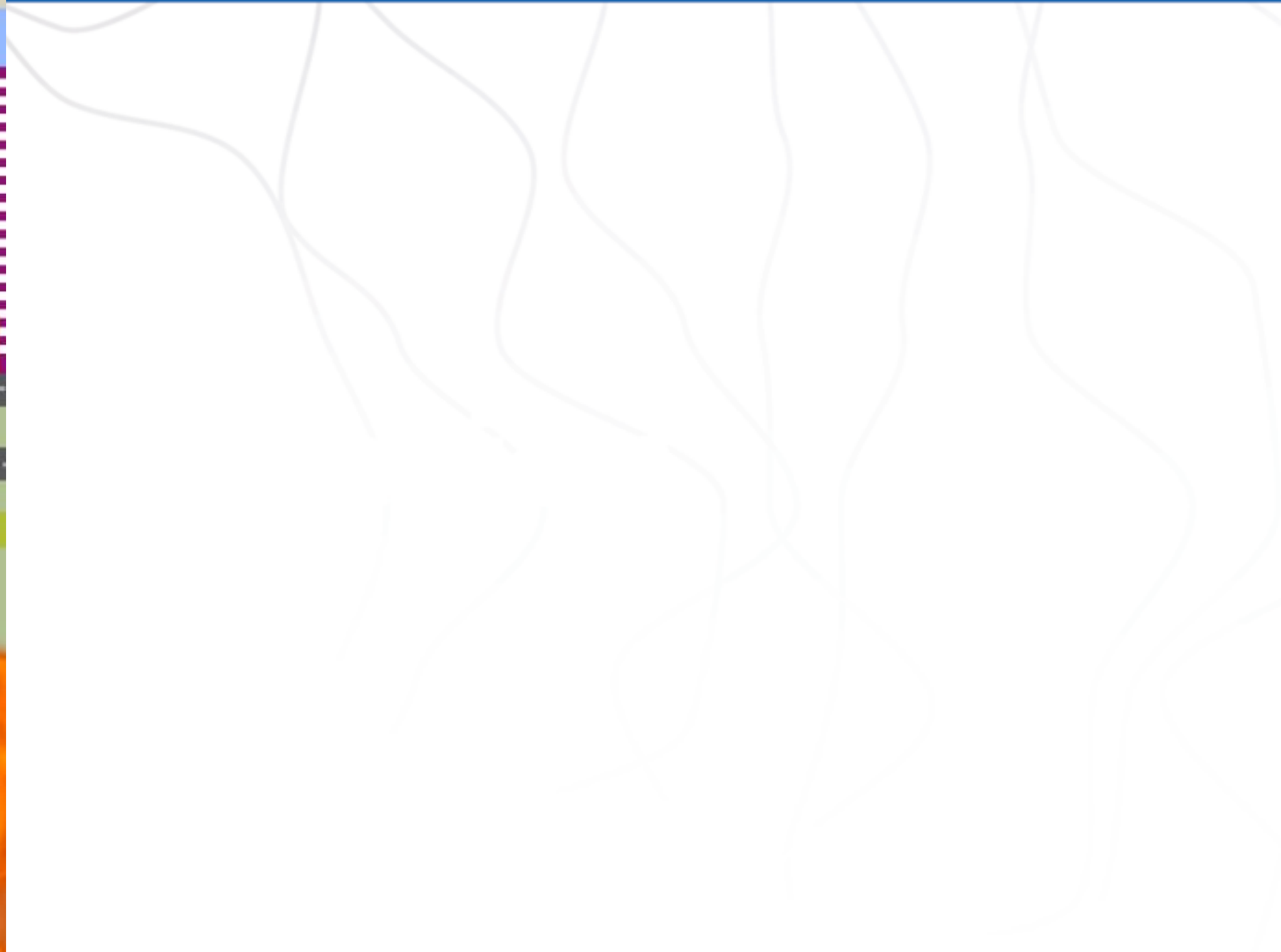
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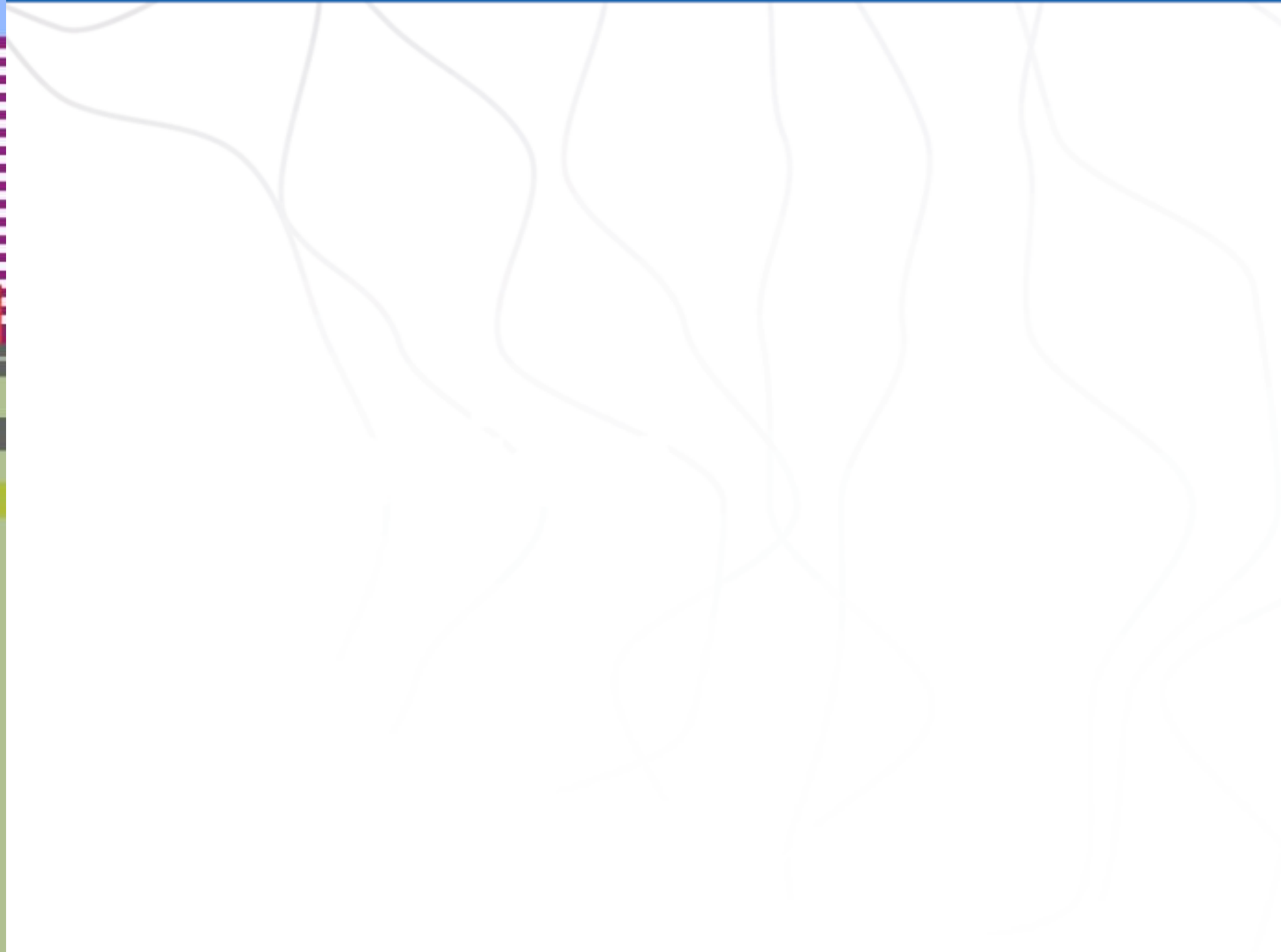


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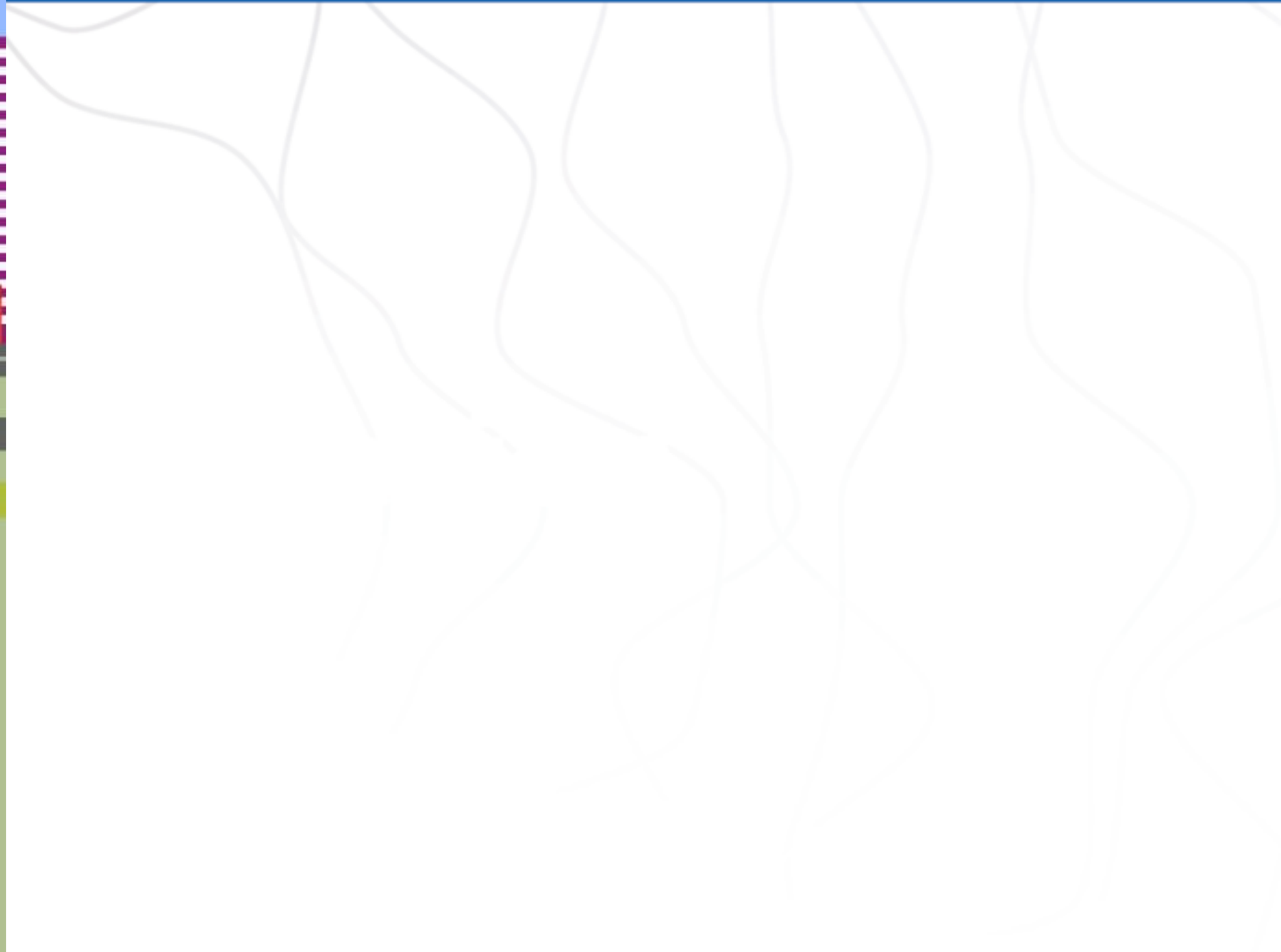


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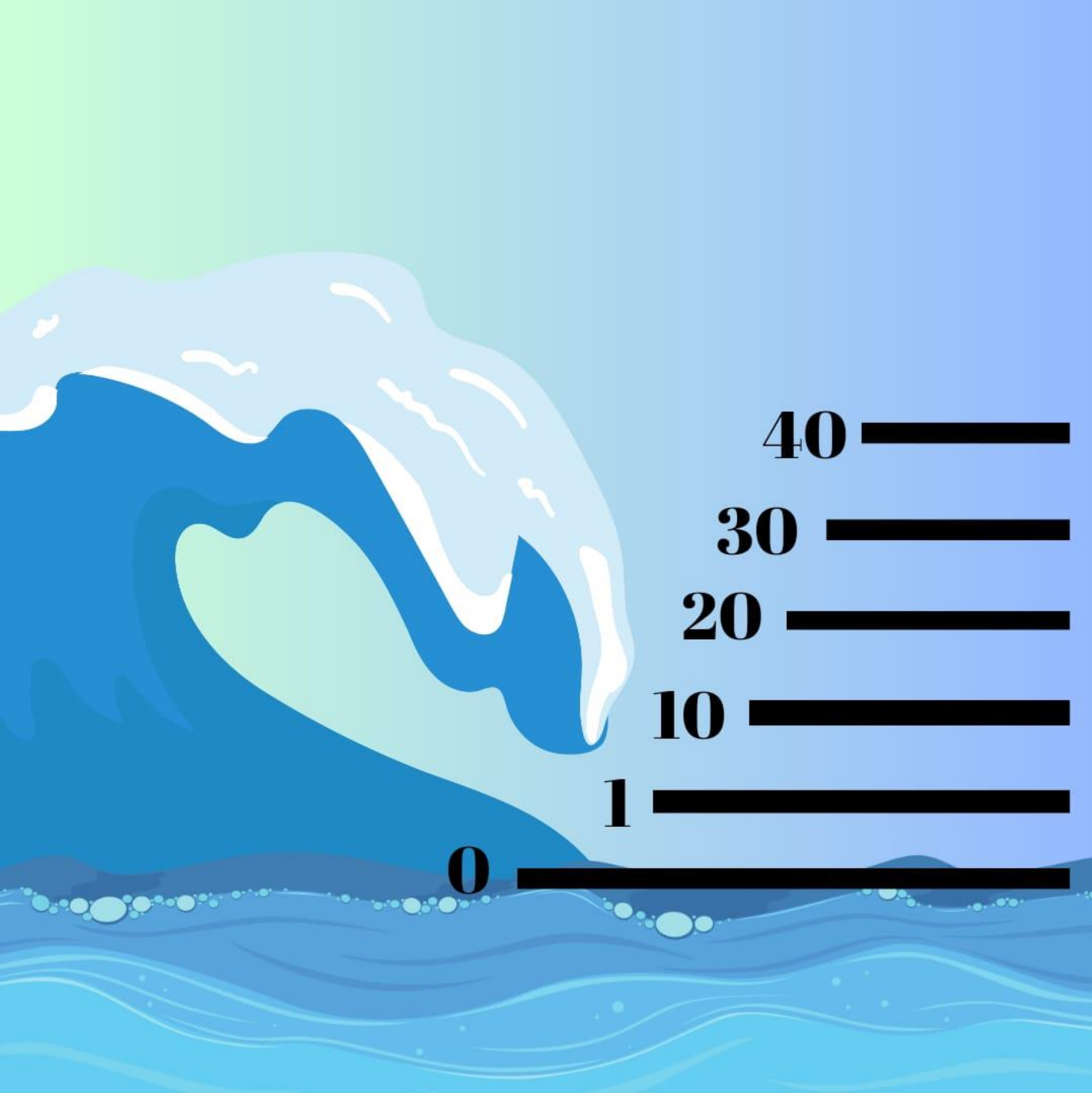


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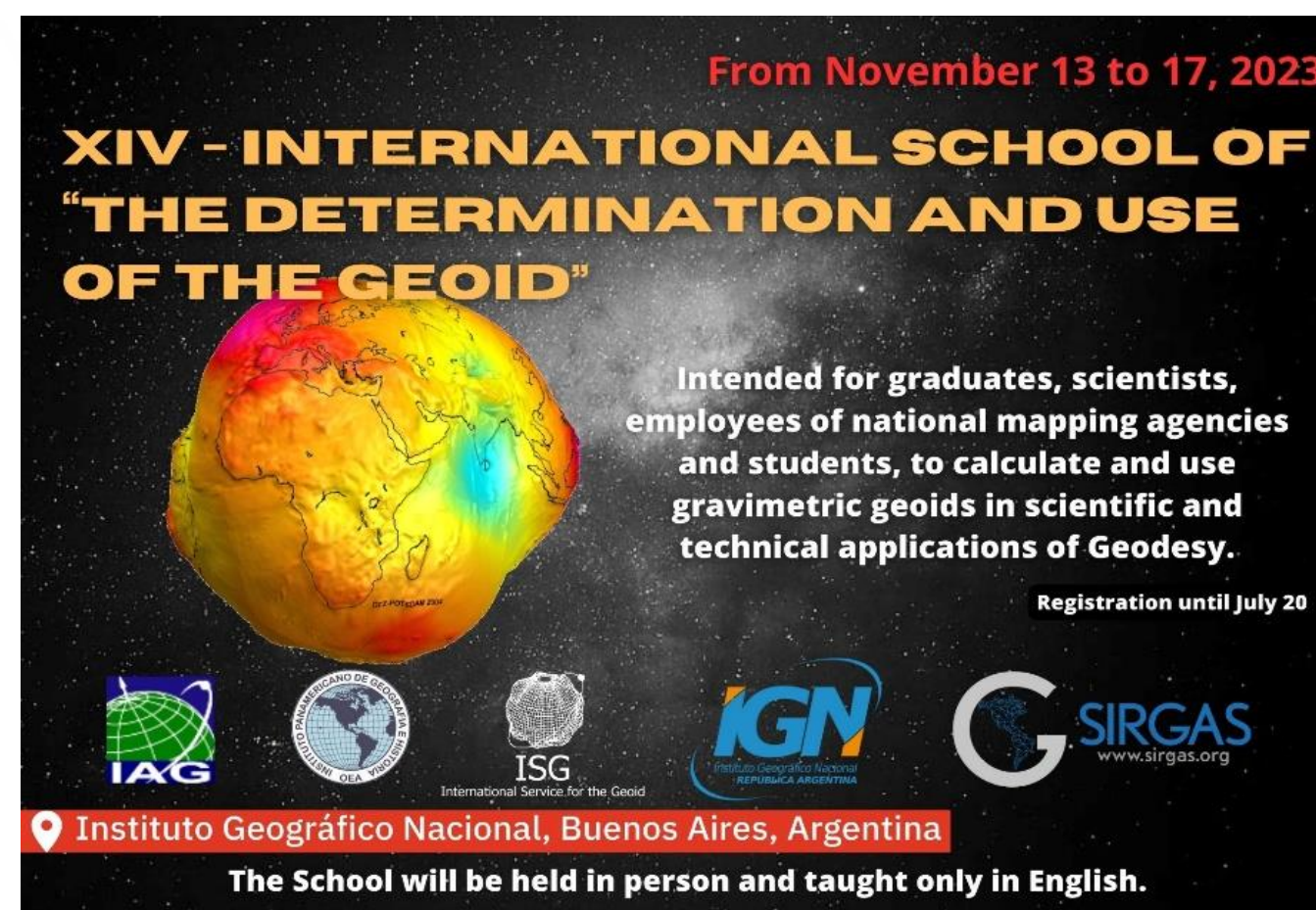
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Training activities



- This course covered the fundamental topics of physics and geometric geodesy. The expository classes were divided into two blocks: theoretical and practical. For the practical block, topics on processing and adjustment of GPS/GNSS networks with BERNESE and GAMIT/GLOBK packages were developed.
- It included the participation of 55 assistants from Chile, Colombia, Costa Rica, Ecuador, Brazil, Mexico, Panama and the Dominican Republic.

- This course will cover the calculation and use of gravimetric geoids for scientific and technical applications in geodesy and will provide the latest advances in geoid determination.
- expected participation of 41 assistants.
- IAG and PAIGH support.



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Geodetic Reference Framework for the Sustainable Development of the Americas

- *a) Develop the SIRGAS 2024 Symposium, in Bogotá (Colombia)*
- *b) Promote the objectives of the Joint Action Plan held between the PAIGH, SIRGAS, UN-GGIM: Americas and GeoSUR*
- *c) Strive towards the objectives proposed by the United Nations in the “Agenda 2030” through support for the “Statistical and Geospatial Framework for the Americas” (MEGA) project.*
- *d) Promote the application of the SIRGAS Geodetic Reference Framework in all countries of the Americas*



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- *e) Strengthen regional cooperation to build capacity in Geodesy, with the aim of ensuring the development, sustainability and promotion of a Global Geodetic Reference Framework (GGRF), in accordance with Resolution “ “A Global Geodetic Reference Framework for Sustainable Development” (A/RES/69/266)*
- *f) Train scientists, professionals and technicians from national cartography agencies, universities and research centers in the most modern geodetic techniques linked to reference frames.*
- *g) Provide support to the United Nations Geodesy Subcommittee through the Geodesy Global Center of Excellence (UN-GGCE), for the implementation of the GGRF at the global level.*



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Thank you, Obrigado, Gracias



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