VIII ENCUENTRO DE CIENTÍFICOS PERUANOS EN EUROPA

Sinapsis 2024

18-20 julio | Düsseldorf, Alemania

The Organizing Committee of SINAPSIS 2024 is pleased to invite the submission of abstracts for oral and poster presentations for this scientific event!

We welcome abstracts from all areas of science. Multi- or trans-disciplinary research is encouraged, as well as collaborations between the academic and private sectors. This event presents the opportunity for early-stage and experienced researchers to exchange knowledge on current research being carried out by Peruvian scientists in Europe.

General Abstract Submission Guidelines

Submission Period: 26 Feb – 28 Apr, 2024

All abstracts are submitted during **registration**.
The complete submission must not exceed one A4 page and should follow these guidelines.
The abstract will be reproduced as it has been submitted. Proofread it for any errors!
Important: Due to the multidisciplinary audience, abstracts should be of scientific popularization. A simple pedagogical language should be used.
The abstract must be prepared in English or Spanish and contain the following sections:

TITLE

The title should be brief and clearly indicate the content.

AUTHOR NAME(S)

Provide the initials and surnames for each author. Do not include degrees or titles.
The submitting author is the corresponding and presenting author. Otherwise, please indicate the name of the corresponding and presenting author.

AFFILIATIONS

Each author should be listed by institution name, city, state/province and country.
Do not include department, division, laboratory, etc.
For authors with different affiliations, please include the numbering of these affiliations.

TEXT

All text must be written either in English or Spanish.
Tables or Figures can be included. Table(s) must be in text format (not graphic format). Figure(s) must be of a good resolution.
It is limited to 400 words including text in Table/Figure, but not the title or authors.
If abbreviations are used (not recommended), place the abbreviation in parentheses after the first use.
Do NOT identify the author(s) or institution(s) in the text.
If possible, **abstracts must be well structured** and have identifiable sections (without the headings):

Introduction / Background / Justification
Objective(s)/Hypothesis(es)
Methods
Results
Implications/Conclusions
References (max. 2)

Optional: keywords (max. 5), acknowledgments (2 lines)

Conclusions must be supported by data and/or findings.

Revisions criteria

All abstracts will be evaluated and scored by the SINAPSIS 2024 Scientific Committee, which may accept them (as an oral presentation or a poster) or decline them.
Proposals will be assessed according to their scientific merit, impact, appeal to the participants of SINAPSIS 2024, level of scientific popularization, as well as clarity and conciseness.

Basis of submission

All abstracts must use the template given by the SINAPSIS 2024 Scientific Committee. Please submit an abstract only if you are willing to fulfill your responsibility as a presenter. Please, remember that this event will be **in-person**.

All presenters must register for the SINAPSIS 2024 Annual Meeting.

Please do not hesitate to contact us via email: academico@sinapsis-peru.org with any questions.

We look forward to seeing you at the SINAPSIS 2024!
The Organizing Committee

Example 1 of abstract according to these guidelines.

Aplicación, desafíos y perspectivas en el modelamiento de la distribución espacial de la anchoveta *Engraulis ringens* mediante redes neuronales

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La anchoveta peruana *Engraulis ringens* sostiene la pesquería monoespecífica más grande del mundo[1] y por ello es un foco de atención en la investigación pesquera en el país. Los SDM (*Species Distribution Models*) son herramientas útiles para mejorar las estrategias de manejo efectivas en la pesquería. Los SDM modelan las asociaciones entre la especie en cuestión y las variables ambientales para poder obtener un hábitat potencial. En el presente trabajo se compararon dos modelos de distribución espacial para la anchoveta. El modelado se enfocó a los meses de febrero y marzo del 2019. Los modelos usados fueron un modelo lineal generalizado (GLM) y el *Presence and Background Learning algorithm*[2] (PBL). Se trabajó con datos de reportes de presencia de la anchoveta y las variables ambientales (temperatura, salinidad, elevación y componentes u y v de la corriente) fueron extraídas del modelo HYCOM. Los resultados mostraron que el PBL tiene mejor performance que el GLM debido a la naturaleza de los datos. Se obtuvo diferencias evidentes en ambas predicciones (Figura 1), presentando el GLM mayor incertidumbre y error. Además, se observó una fuerte relación de la presencia de la anchoveta con respecto a la anomalía de la temperatura superficial del mar. Las anomalías negativas están asociadas a fuertes núcleos de presencia de anchoveta. Ante un enfoque de cambio climático, el aumento de la temperatura superficial del mar sería un factor negativo para la presencia del recurso. El modelo PBL podría ser de gran utilidad para realizar predicciones en otras especies pelágicas marinas como el jurel, la sardina y la caballa.

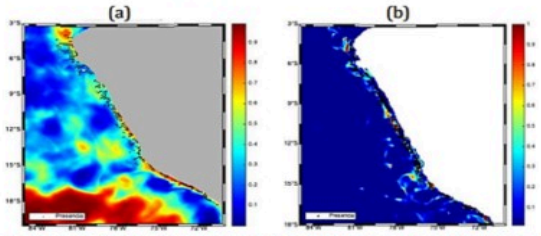

Figura 1: Predicción de la distribución de la anchoveta peruana para los meses de febrero y marzo del 2019. (a) GLM, (b) PBL. Los puntos negros indican las observaciones de presencia de anchoveta.

Agradecimientos: El siguiente trabajo fue posible gracias al financiamiento del IMARPE.

Palabras claves: Modelos de distribución de especies; anchoveta; Perú

Referencias:

1. Joo, R., Salcedo, O., Gutierrez, M., Fablet, R., Bertrand, S., **2006.** Defining fishing spatial strategies from VMS data: Insights from the world's largest monospecific fishery. *Fisheries Research,* **164**, 223-230.
2. Li, W., Guo, Q., Elkan, C., **2011.** Can we model the probability of presence of species without absence data? *Ecography,* **34**, 1090-1105.

Example 2 of abstract according to these guidelines.

Pushing neutrino physics to the cosmic frontier

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ABSTRACT

What is Nature like at its most fundamental level? What are its building blocks and how do they interact? What are its organizing principles? These questions lie at the core of Physics, science, and human curiosity. During the last century, we steadily found deeper answers, using increasingly powerful particle accelerators that revealed fundamental particles, interactions, and symmetries. Yet, ample territory remains unexplored at higher energies, ripe for discoveries. Today, accelerators still churn out valuable data, but, so far, fail to guide us in furthering our view of fundamental physics. Observing particle processes at higher energies would provide guidance, but they lie beyond the reach of accelerator technology. Fortunately, Nature itself provides a way forward: we must turn from man-made particle accelerators to naturally occurring cosmic accelerators. These are extreme phenomena---exploding and colliding stars, active black holes---that emit particles with energies millions of times higher than man-made accelerators. Among these particles, high-energy neutrinos---elementary particles with strange, unique properties---are particularly incisive probes, not only of particle physics, but also of astrophysics at the highest energies. I will show how we harness their vast potential to unearth the particle physics and astrophysics that awaits at the highest, unexplored energies.