

ABSTRACT:

Name of Responsible Researcher:	Name
Proposal Title:	Title

Describe the main issues to be addressed: objectives, methodology and expected results. **The maximum length for this section is 1 page** (use letter size format, Verdana font size 10 or similar).

RESEARCH PROPOSAL

In this section, you must incorporate the following aspects:

- Theoretical-conceptual and state-of-the-art developments that underpin the proposal
- Objectives and hypotheses or research questions
- Methodology
- Work Plan, schedule and Gantt chart
- Background information to assess the capacity of the team to implement the proposal
- Scientific or technological novelty of your proposal

Remember that:

- All text, paragraphs or textual phrases from a bibliographic reference, whether by other authors or their own, must be duly identified in the text and in the list of references.
- You must strictly comply with what is established in Bases Concurso Nacional de Proyectos Fondecyt Regular 2023.

This file must contain a maximum of **10 pages** (use letter size format, Verdana font size 10 or similar).

a) State-of-art

Explique detalladamente el problema o aplicación que busca trabajar. Para acompañar su proyecto, puede utilizar ecuaciones dentro del texto como $\frac{x}{\sqrt{1-x^2}}$, o bien ecuaciones enumeradas, por ejemplo:

$$\exp(i\theta) = \cos(\theta) + i \sin(\theta). \quad (1)$$

Puede citar ecuaciones enumeradas, por ejemplo la ecuación (1) es una de las ecuaciones básicas del cálculo complejo.

También puede agregar figuras para explicar mejor sus ideas. Trate de citarlas adecuadamente en el texto, por ejemplo, la figura 1 muestra un ejemplo usado en wikipedia para explicar la electricidad estática [4].

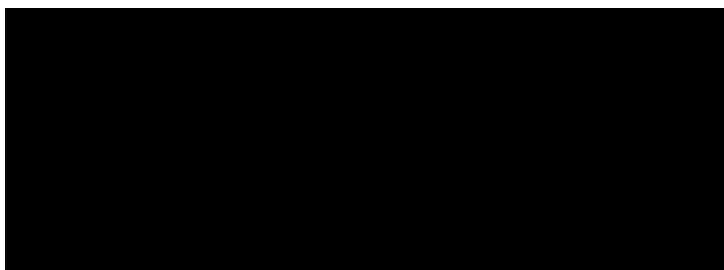


Figure 1: Bolas de poliestireno adheridos al pelaje de un gato debido a la electricidad estática. [4].

a.1 A subsection

Si cree necesario, puede separar el texto en subsecciones.

Para darle peso a su proyecto, puede citar libros, páginas web o artículos científicos. Por ejemplo, esta es una referencia [1] o dos referencias juntas [1, 2, 3].

b) Goals

b.1 Main goal

Un único párrafo indicando, en general, el objetivo de este proyecto o los resultados esperados. Este párrafo debe empezar por un verbo (Por ejemplo, resolver, estudiar, simular, derivar, entre otros).

b.2 Specific goals

1. Escribir un máximo de tres objetivos, todos distintos y deben empezar con un verbo.
2. Esta es una lista de objetivos más simples que ayudarán a cumplir el objetivo general.
3. Cada objetivo específico estará relacionado a una metodología.

c) Hypothesis

d) Methodology

1. Describa cómo llevará a cabo cada objetivo específico.
2. Cada actividad que proponga, debe ser listada en la carta Gantt (ver plan de trabajo).
3. Enliste las herramientas que utilizará para llevar a cabo su proyecto (por ejemplo, lenguajes de programación, recursos computacionales disponibles, características de los computadores donde llevará a cabo su trabajo, etc.).

d.1 Methodology for specific goal #1

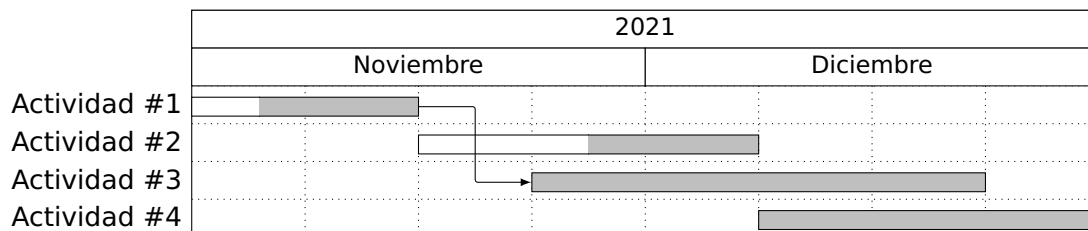
d.2 Methodology for specific goal #2

d.3 Methodology for specific goal #3

e) Work plan

Explique las tareas que realizará para cumplir con los objetivos específicos. Además, justifique el tiempo que cree que dedicará a cada una de estas tareas. Luego, resumirá estas tareas y tiempos de ejecución en una tabla que llamamos *carta Gantt*.

e.1 Gantt chart



BIBLIOGRAPHIC REFERENCES:

In this section, include the list of full references cited in the Research Proposal section. **Length: 5 pages.** (Use letter size format, Verdana font size 10 or similar).

- [1] Robert A. Adams and John J. F. Fournier, *Sobolev spaces*, second ed., Pure and Applied Mathematics (Amsterdam), vol. 140, Elsevier/Academic Press, Amsterdam, 2003. MR 2424078
- [2] Eric Cancès, Virginie Ehrlacher, and Tony Lelièvre, *Greedy algorithms for high-dimensional non-symmetric linear problems*, Tech. report, arXiv, 2012, arXiv:1210.6688v1 [math.FA].
- [3] Norman G. Meyers and James Serrin, $H = W$, Proc. Nat. Acad. Sci. U.S.A. **51** (1964), 1055–1056. MR 164252
- [4] Wikipedia contributors, *Static electricity* — *Wikipedia, the free encyclopedia*, https://en.wikipedia.org/w/index.php?title=Static_electricity&oldid=1051830510, 2021, [Online; accessed 5-November-2021].

JUSTIFICATION OF REQUESTED AMOUNTS:

To complete this section, review the Guidelines for the Regular National Competition 2023 and application instructions (use letter size format, Verdana font size 10 or similar).

TECHNICAL AND/OR SUPPORT PERSONNEL

Complete the following table to justify the request for resources in this item, indicate the number of people who will collaborate in the proposal, hours of dedication per week, hours of dedication per month, months of dedication per year, and professional fees agreed for proposed days. In addition, specify in detail the tasks that each person included in this item will perform.

Technical Personnel: People who carry out permanent technical functions for the research during the execution of the proposal:

Technical personnel	Hours of dedication		Months of dedication				Professional Fee (Thousands of CLP)
	Week	Month	Year 1	Year 2	Year 3	Year 4	
Personnel 1							
Personnel 2							

Describe the tasks of each technical personnel here:

Personnel 1- Tasks	
Personnel 2- Tasks	

Support Personnel: People who carry out permanent administrative functions for the activities associated with the execution of the proposal:

Support personnel	Hours of dedication		Months of dedication				Professional Fee (Thousands of CLP)
	Week	Month	Year 1	Year 2	Year 3	Year 4	
Personnel 1							
Personnel 2							

Describe the tasks of each support personnel here:

Personnel 1- Tasks	
Personnel 2- Tasks	

SCHOLARSHIPS FOR THESIS FELLOWS

Indicate the undergraduate and postgraduate theses you intend to fund through the proposal.

	Number of thesis fellows to be trained, justify request
Year 1	
Year 2	
Year 3	
Year 4	

OPERATIONAL EXPENSES

Under this item, you must request and justify the resources requested for proposals travel, international co-operation travel, and general operating expenses.

OPERATIONAL EXPENSES - PROJECT TRAVEL:

Travel arrangements are funded solely for activities directly related with the execution of the proposal, presentation of results, and dissemination to society. Only **economy airfares** are accepted.

Check the table of reference rates for travel and per diem available at <https://www.anid.cl/concursos> and adequately justify the purpose of the requested trip(s).

FOREIGN TRAVEL: A maximum of **one trip per year** is financed for scientific meetings or congresses.

CONGRESS TRAVEL

	Airfare (Thousands of CLP)	Per diem (Thousands of CLP)	Destination	Number of days	Purpose of the trip
Year 1					
Year 2					
Year 3					
Year 4					

STAYS TRAVEL

	Airfare (Thousands of CLP)	Per diem (Thousands of CLP)	Destination	Number of days	Purpose of the trip
Year 1					
Year 2					
Year 3					
Year 4					

DOMESTIC TRAVEL:

	Airfare (Thousands of CLP)	Per diem (Thousands of CLP)	Destination	Number of days	Purpose of the trip
Year 1					
Year 2					
Year 3					
Year 4					

OPERATIONAL EXPENSES - INTERNATIONAL COOPERATION TRAVEL:

International cooperation is understood as the travel to Chile, by a specialist residing abroad, in order to reinforce the activities of the project.

In this section, justify your request for resources to develop international cooperation activities in Chile. You can only request international cooperation in one or two years of project execution, regardless of its duration.

	Airfare (Thousands of CLP)	Per diem (Thousands of CLP)	Origin of visiting specialist	Number of days	Description of visiting specialist and purpose of his or her stay
Year 1					
Year 2					
Year 3					
Year 4					

GENERAL OPERATIONAL EXPENSES:

In the following table, indicate the **estimated annual cost** of one or more subitems necessary for a successful execution of the project. Provide a detailed justification for your funding request for each subitem.

Important:

- Review the Guidelines for the Regular National Competition 2023 regarding the expenses that can be charged to the project.
- Equipment must be requested under the equipment item.

Subitem	Justification of request	Year 1 (Thousands of CLP)	Year 2 (Thousands of CLP)	Year 3 (Thousands of CLP)	Year 4 (Thousands of CLP)
Materials					
Training					
Registration fees for seminars, congresses, workshops, etc.					
Publications, Intellectual and Industrial Property					
Purchase of publications and subscriptions					
Dissemination expenses					
Software					
Expenses incurred in performance bonds, insurance policies or promissory notes					
Equipment repair and rental					
Transportation					
Hosting meetings					
Other operational expenses					
TOTAL:					

EQUIPMENT

Justify the need to have the requested equipment, indicating how they relate to the proposed objectives and/or methodologies. Describe the technical specifications for each of them. **Tablets, Printers, Notebooks, Desktop Computers, among others, must be included in this item.**

ANID suggests incorporating quotes for equipment whose characteristics are very specific into the Anexos - Otros documentos section.

Equipment purchases cannot be requested in the last year of proposal execution.

	Name of equipment	Cost (thousands of CLP) (*)	Justify your request
Year 1			
Year 2			
Year 3			

(*) The requested amount must include import costs, adaptation of physical spaces, installation and commissioning, maintenance, warranties, and insurance.

INFRASTRUCTURE AND FURNITURE

In the following table, indicate the **estimated annual cost** of each subitem necessary for a successful execution of the project.

Subitem	Justification of request	Year 1 (Thousands of CLP)	Year 2 (Thousands of CLP)	Year 3 (Thousands of CLP)	Year 4 (Thousands of CLP)
Adaptation of physical spaces					
Furniture					
TOTAL:					

AVAILABLE RESOURCES:

In this section, indicate all the resources and means committed by the Sponsoring Institution(s) for the adequate development of the Research (Use letter size format, Verdana font size 10 or similar).

POTENTIAL GUESTS INTERNATIONAL COOPERATION:

Inform the possible researchers that you propose to invite to Chile, within the framework of the international cooperation requested in your application. The information you provide in this document must be consistent with that indicated in the resource justification file. (Use letter size format, Verdana font size 10 or similar).

International Cooperating Information				
Name	Surname	E-mail	Institution	Line of research