



## Women in the nuclear field promoting Latin American integration

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### 1. Introduction

Besides nuclear reactors, nuclear technology applications are used in the health area, development of new materials and industry among others [1]. The central idea for the creation of the international association Women in Nuclear -*WiN Global*- was to support and encourage women working in nuclear science and technology to participate on the promotion of understanding and knowledge of the benefits of the peaceful use of nuclear energy by the public. The organization *WiN Global* had its first constitutional meeting in 1993 (<https://win-global.org/about/history>). *WiN Global* currently has predominantly female members coming from 129 different countries, belonging to chapters or individually. Today, *WiN Global* is integrated by 53 *WiN Global* chapters. Forty-nine countries have their own chapters, such as *WiN Argentina*, *WiN Brazil*, *WiN Mexico* and there are international ones such as: *WiN IAEA*, *WiN Young Generation* and regional chapters like *Win Europe*, *WiN Africa* and *WiN ARCAL*. ARCAL is an acronym that stands for Regional Cooperation Agreement for the Promotion of Science and Technology in Latin America and the Caribbean; today it is a network of 22 countries in the region, which puts nuclear technology at the service of the lives of the populations. The history of Latin American integration has up and downs since the political independence movement of the countries of the “New Continent”. In the last decades, nevertheless, there are a predominance of a regional ambiance of good relationship [2-5]. In the present study, a particular way of seeing this integration is presented using data from registered published articles. Latin American *WiN* chapters are promoting activities for the integration of our region.

### 2. Methodology

In order to quantify the participation of Latin American women, this paper presents a survey crossing data of the number of related publications to help to address an objective analysis of the trend of this integration and evolution with time of women participation in nuclear activities in Latin America over time. *Web of Science Core Collection* and the *Scielo Citation Index* databases were used. This last database provides articles on academic literature in the sciences, social sciences, arts and humanities from leading open access publications in Latin America, Portugal, Spain and South Africa, published in Spanish, English or Portuguese since 2002.

### 3. Results and Discussion

Figure 1 displays the number of publications mentioning different crossings in 2 periods, 2002-2010 and 2002-2020. The number of articles on *women+Latin America (LA)*, on *women + LA+nuclear energy* or *nuclear applications*, as well as *LA integration* increased following similar tendency. The number of articles on *foreign affairs* plus *LA* remained extremely low. It looks like that in the last decade the mention of women in the region triplicated when compared with the previous one.

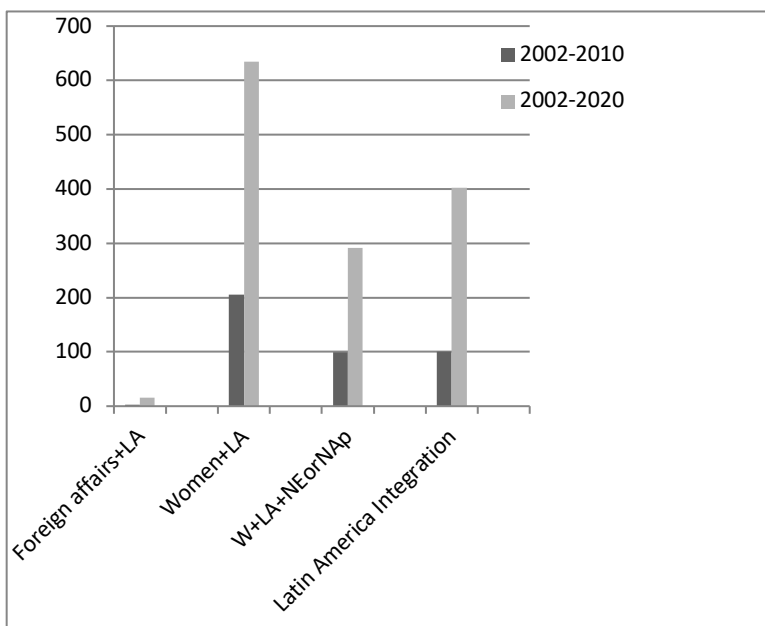


Figure 1: Number of published articles mentioning different crossings in the periods of 2002-2010 (dark grey) and 2002-2020 (light grey).

In figure 2 is shown the result of the survey of the number of articles published as a function of time mentioning together *gender equity* and *Latin America*. That subject started to appeared in the present century and is fortunately increasing since then [6].

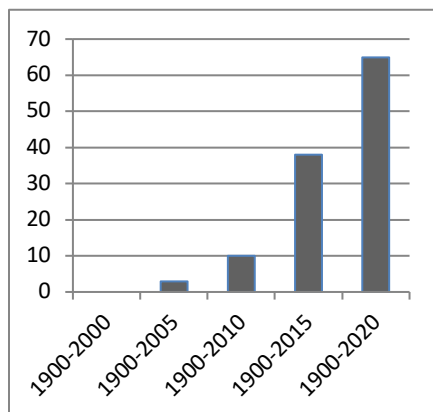


Figure 2: Number of published articles mentioning together *gender equity* and *Latin America* with time.

In figure 3 is displayed the result of a survey crossing the tags *women* plus *nuclear energy* or *nuclear applications*. In this case, articles mentioning *women* + Nuclear start to appear in the 1970's keeping an increasing tendency since then.

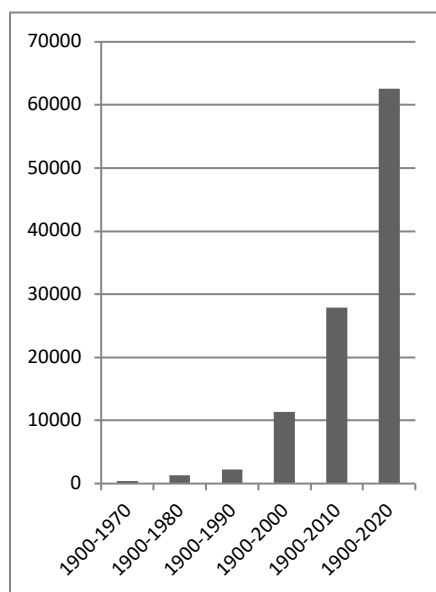


Figure 3: Number of published articles mentioning *women plus nuclear energy or nuclear applications* as a function of time.

#### 4. Conclusions

The results present evidence that the increase of women participation in the nuclear field is consistent with the increase of nuclear activities in the Latin America region and also with the increase of gender equity. A workforce that better embodies the diversity of society, including the representation of women, also helps to cement society's confidence in cutting-edge technologies, such as nuclear technologies, particularly in Latin American countries. The promotion of equality of female and male representation in science, technology and innovation is an opportunity to advance correctly towards sustainable development. Women in the nuclear field participate actively in that challenge, and with the creation of the *WiN ARCAL* chapter, they are giving a further contribution for the integration of Latin America.

#### References

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