

Revista Brasileira de Política Internacional

ISSN 1983-3121

http://www.scielo.br/rbpi

GAO Fei¹

¹ Ocean University of China, Law School, Qingdao, Shandong, China 238 Songling Road, Qingdao City, Shandong Province, China gfzdcgy1995@163.com



orcid.org/0000-0002-1069-1023

Arthur Roberto Capella Giannattasio²

 University of São Paulo, International Relations Institute
Av. Prof. Lúcio Martins Rodrigues, s/n, travessas 4 e 5
Cidade Universitária - CEP: 05508-020 -São Paulo/SP – Brasil arthur@usp.br



ORCID ID: orcid.org/0000-0003-3273-4052

GUO Peiging³

³ Ocean University of China, School of International Affairs and Public Administration 238 Songling Road, Qingdao City, Shandong Province, China peiqingguo@163.com



ORCID ID: orcid.org/0000-0002-1207-036X

Copyright:

- This is an open-access article distributed under the terms of a Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided that the original author and source are credited.
- Este é um artigo publicado em acesso aberto e distribuído sob os termos da Licença de Atribuição Creative Commons, que permite uso irrestrito, distribuição e reprodução em qualquer meio, desde que o autor e a fonte originais sejam creditados.



Brazil-China Cooperation in the Arctic Region: A Prospective Analysis of a Practical Agenda for Mutual, Local and Community Interests

DOI: http://dx.doi.org/10.1590/0034-7329202300105

Rev. Bras. Polít. Int., 66(1): e005, 2023

Abstract

The effects of climate change over the Arctic region have attracted manifold interests in the last decades from several state and non-state actors. Due to a flawed institutional capacity to promote a multi-stakeholder approach in Arctic affairs, the main governance mechanism over the Arctic – the Arctic Council – is incapable of dealing with related geopolitical tensions. Based on document analysis and specialized literature, we discuss the implications and challenges of Brazil-China cooperation over Arctic affairs. We argue that both countries have multi-domain interests over the region (science, economics, environment, among others) and that such a cooperation can serve those interests. We also highlight that engaging in such an initiative can create strategic synergies for both countries and contribute to their common agenda of geopolitical rebalance of international order. Finally, we argue that such a cooperation is capable of stimulating an institutional reform of the Arctic Council towards a multi-stakeholder approach in the governance, as well as advance community interests of this polar area.

Keywords: Arctic Region; Arctic Council; Brazil-China Cooperation; Multi-Stakeholder Approach; Climate Change.

Received: January 19, 2023 Accepted: May 24, 2023

Introduction

Climate change, global warming, sea level rise and prolonged marine heatwaves (World Meteorological Organization 2022a, 6-10) are associated to the gradual sea-ice melt in the Arctic region (area above latitude 66°32 N). The *US National Snow and Ice Data Center* (National Snow and Ice Data Center 2022) shows that the extent of Arctic sea-ice in spring 2022 was the 11th lowest in nearly 44 years, and in 2020, this figure fell to the second-lowest level in nearly 42 years (National Snow

and Ice Data Center 2020). Considering that "the ice cover has got depleted by 74 percent since 1988 and mere 2 percent of the oldest ice covers are existing" (Rashmi 2019, 4), and that only between 1999 and 2019, the Arctic sea-ice diminished from 6,1 million km² to 4,5 million km² (Arctic Council 2020, 18), studies argue that the region will be ice-free in summer for the first time around 2034 (Peng et al. 2020, 15). This also poses local social and cultural challenges, as the Arctic is home of around "4 million people [...] of whom 10% are Indigenous" (Intergovernmental Panel on Climate Change 2019, 5).

Climate change diminishes the possibility of providing public health (World Health Organization and World Meteorological Organization 2012), food security (World Meteorological Organization 2019), food safety (Oliveira et al. 2020, 14-7), energy production (World Meteorological Organization 2022b), as well as preserving biodiversity and related cultural interactions (Intergovernmental Panel on Climate Change 2022, 1055). It is estimated that climate change will alter the properties and distribution of polar-associated ecosystems in the Arctic, as well as the productivity of marine fisheries, the well-being of local inhabitants, the preservation of associated traditional culture, among others (Intergovernmental Panel on Climate Change 2019, 226-30, 234, 252-4 and 259-60).

Yet, economic opportunities derived from climate change (Antrim 2011; Babin 2019; Ho 2011; Joyner 2011) attracted the attention of different actors – such as states and non-state actors (Young 2012, 277-8). They identified manifold exploitation possibilities (Graczyk and Koivurova 2014, 225; Lagutina and Leksyutina 2019, 11): new trade routes, access to natural resources (fisheries, oil, gas), tourism, development of shipping technology (Arctic Council 2020, 7-10 and 20; Intergovernmental Panel on Climate Change 2019, 235-6), among others.

This paper focuses on possible cooperation in Arctic affairs between Brazil and China. They already cooperate in various fields: from economic-related issues – energy, agriculture, infrastructure, and food (Zhao 2022) – to a broader geopolitical agenda of reducing dependence from US and European consolidated standards and promoting community interests towards a more inclusive international order (Abdenur 2017; Ministério de Relações Exteriores do Brasil 2023; Castro and Denny 2020; Ministry of Foreign Affairs of the People's Republic of China 2023; Stuenkel 2015; 2016a).

Cooperation towards the rebalance of powers in international relations comprises some initiatives, such as indirect transformation of existing international institutions (Abdenur 2016; Dann and Riegner 2019; Stuenkel 2016b), creation of competing multilateral institutions (Dann and Riegner 2019; Stuenkel 2017), re-definition of the terms and governance of existing international regimes. Some examples are the re-imagination of institutional standards concerning (i) protection of the environment (Castro and Wang 2023; Castro and Zhang 2022; Vazquez 2020) – including the recent joint statement on combating climate change (Ministério de Relações Exteriores do Brasil 2023), and (ii) trade and investment (Bath 2017) – including the recent agreements "for direct operation between the Brazilian real and the Chinese yuan – with no in-between dollarization" ("Brazil's President Lula makes third state visit to China." 2023).

Thus, engaging in active Arctic cooperation is another opportunity for Brazil and China to push their partnership to a new stage and to mutually reinforce and enhance their respective international interests and influence.

A partnership is a strategic relationship in which the partners cooperate to achieve common goals based on equal *status* and common interests (Amorim and Ferreira-Pereira 2021). Having established their first strategic partnership in 1993 (Ministry of Foreign Affairs of the People's Republic of China 2000), Brazil and China pushed their relationship forward in following decades and upgraded it in 2014 into a comprehensive strategic partnership (State Council of the People's Republic of China 2014). By occasion of the recent signature of 15 trade-related agreements in April 2023, they issued another joint statement to deepen their cooperation strategies (Ministério de Relações Exteriores do Brasil 2023; Ministry of Foreign Affairs of the People's Republic of China 2023).

China has been Brazil's largest trading partner for 13 consecutive years (Ministério de Relações Exteriores do Brasil 2022) - in 2021, trade volume was US\$141.521 billion (United Nations 2022), of which Brazil's exports to China amounted to US\$87.908 billion (31.30% of total exports), and imports from China amounted to US\$53.465 billion (22.78% of total imports). Establishing a strategic partnership does bring the partners into a closer arrangement that surpasses the mere mutual satisfaction of economic interests. However, such an agreement does not hinder the possibility of each partner to engage and deepen cooperation initiatives with third countries (Vazquez 2022) – a strategy largely developed among BRICS countries themselves (Vazquez 2021).

Brazil and China are not Arctic states, but signaled their intent of engaging in the region (Guo 2012, 22; Young 2012, 282). The fruitful outcomes of such a partnership are envisageable from a logical perspective: past successful cooperation in different fields – including polar affairs within the Antarctic Treaty System (ATS) – lays a coherent foundation for their future cooperation in Arctic affairs.

China has been an observer of the Arctic Council (AC) since 2013 and released a *White Paper on Arctic Policy* in 2018 whereby it stated that it "supports the participation of all Arctic stakeholders in Arctic governance and international cooperation." (State Council Information Office 2018). In its last *Biennial Regular Report (2019-2021)*, China stressed its regular and active commitment in the region with: (i) several activities within the mandate of the AC (research, climate change, environment protection, among others), and (ii) active participation in distinct organs of the AC (Arctic Council 2021, 25-8).

Brazil is not a newcomer in polar issues. After becoming a party to the ATS in 1975, the country developed annual research activities in Antarctica since 1983 via Brazilian Antarctic Program (PROANTAR). Although the initial interest of Brazil in the Arctic was at first indicated by the private sector, state-owned enterprises, and members from Brazilian polar science (Lagutina and Leksyutina 2019; Santos et al. 2018), PROANTAR's last *Plan of Action (2013-2022)* argued for a closer official interaction of Brazilian government with the Arctic region (Ministério da

Ciência, Tecnologia e Inovação do Brasil 2013, 2 and 25). In this sense, the organ responsible for PROANTAR – Interministerial Commission for the Resources of the Sea (CIRM) – created in 2021 the Arctic Working Group (AWG) to assess the convenience of a closer involvement in Arctic affairs (Ministério da Defesa do Brasil. 2021a).

Brazil-China Arctic cooperation has been explored in academia, but the issue is scattered in works focusing on the BRICS framework (Casella et al. 2021; Kuang and Ou 2018; Lagutina and Leksyutina 2019; Mammadli and Kalfaoglu 2021). While BRICS is an important platform to promote this cooperation, existing literature does not address Brazil-China Arctic cooperation outside it, as did previous studies in other fields (Abdenur 2019; Amorim and Ferreira-Pereira 2021; Becard 2011; Morosini and Badin 2022).

This article addresses this partial gap in three parts. The first part presents the Arctic as a region of a multi-stakeholder interest. The second discusses the self, mutual and community interests that Brazil and China assert over the Arctic. The third part discusses some challenges faced by this initiative.

Overlapping Legal Regimes: The Arctic as a Multi-Stakeholder Region

The Arctic region is a semi-closed ocean surrounded by eight states, the Arctic countries: Canada, Denmark, Finland, Iceland, Norway, the Russian Federation, Sweden, and the United States. The area is partially located under their sovereignty, and, therefore, parts of the land, sea and air territories are under their national legal regimes. There are also local non-state legalities from indigenous communities – the Aleut, the Athabaskan, the Inuit, the Saami, among others – who inhabit the region with their respective social dynamics and structures (Dubreuil 2011).

International organizations and other cooperation mechanisms also define legal regimes in the Arctic (Guo 2012, 33-5; Young 2012, 290-6). Just to mention a few: (i) the Svalbard Treaty (ST, 1920), (ii) the International Convention for the Regulation of Whaling (ICRW, 1946), (iii) International Maritime Organization (IMO, 1958), especially after the Polar Code (2014), (iv) the United Nations Convention on the Law of the Sea (UNCLOS, 1982), (v) regional fisheries organizations, such as the Northeast Atlantic Fisheries Commission (NEAFC, 1980) and the North Atlantic Salmon Conservation Organization (NASCO, 1983), (vi) legal prescriptions on fisheries from the Food and Agriculture Organization (FAO, 1945) and the United Nations Fish Stock Agreement (UNFSA, 1995), and (vii) the AC, created by the Ottawa Declaration (OD, 1996).

The plethora of regimes over the Arctic indicates that it is comprised by an overlapping incidence of different legal frameworks, variable political strategies, and diverse worldviews. Thus, sovereign interests of Arctic countries are not the sole legal and political drivers of the area: indigenous legalities and the complex web of international legal frameworks also define legal, political, and social parameters for the region, whether or not (i) these areas lie inside the

national jurisdictions of each Arctic country, and (ii) these regimes are originated solely in the national sovereign discourse of Artic countries.

The Arctic region is neither of exclusive interest of Arctic states, nor exclusively driven by their perspectives. Indeed, "[c]limate change in the Arctic [...] affect people outside of the polar regions in two keyways. First, physical and ecosystem changes in the polar regions have socioeconomic impacts that extend across the globe. Second, physical changes in the Arctic [...] influence processes that are important for global climate and sea level" (Intergovernmental Panel on Climate Change 2019, 269-70). Considering that "[t]he consequences of this polar transition extend to the whole planet, and are affecting people in multiple ways" (Intergovernmental Panel on Climate Change 2019, 205), non-Arctic actors signaled their attention on the region (Lagutina and Leksyutina 2019, 11).

Since 1998, the AC granted observer *status* to non-arctic states and non-state actors (Casella et al. 2021, 59-61). The non-arctic states are 5 countries from Asia (China, India, Japan, Singapore, and South Korea) and 8 countries from Europe (France, Germany, Italy, Netherlands, Poland, Spain, Switzerland, and United Kingdom). However, considering that the "many challenges [in the Arctic] extend beyond national borders and the region's boundaries, and can be more effectively addressed through regional or multilateral cooperation" (European Commission 2021, 1), other actors resorted to initiatives outside the AC.

The European Union (EU) has adopted since 2008 initiatives to support environmental protection and sustainable development in the Arctic to benefit local populations and the EU itself (European Commission 2012; 2021). By the same token, being "washed by every ocean of the World" (Brazil, Russia, India, China and South Africa 2021, 7), the BRICS countries have adopted since 2014 joint declarations and initiatives concerning ocean and polar fields as priority areas for their cooperation strategies (Brazil, Russia, India, China and South Africa 2014; 2015).

These initiatives do not deny the "primary responsibility" of Arctic states to engage with "challenges and opportunities" for the region (European Commission 2021, 1). However, based on the consensus that "polar systems are subject to climate change effects and increasing anthropogenic pressures [..., which are] mediated through complex ocean-atmosphere exchanges, sea ice-air interactions, and land-sea interactions[, which] are particularly active in high-latitude regions and coastal areas worldwide" (Brazil, Russia, India, China and South Africa 2021, 7), they follow a conscious multi-stakeholder approach to the Arctic.

Brazilian and Chinese Interests in the Arctic and Strategic Implications

From Science to Multi-Domain Interests

AWG was established in May 2021 to assess Brazil's interests in Arctic affairs (Ministério da Defesa do Brasil 2021a). The organ has so far suggested the adherence to the ST (Ministério da Defesa

do Brasil 2022) - which was not yet performed (Ministère de L'Europe et des Affaires Étrangères 2022). AWG argues that polar affairs are relevant for Brazil due to "economic, geopolitical, strategic and environmental" reasons, and that becoming a party of the ST is a clear indication of Brazilian interests over the Arctic (Ministério da Defesa do Brasil 2022).

The primary Brazilian interest in the Arctic is advancing polar science concerning the relationship between North and South Poles (Ministério da Ciência, Tecnologia e Inovação do Brasil 2013, 2 and 25). AWG assessed that carrying out scientific research there "provides opportunities for research on marine mammals such as whales and walruses; migratory birds that make connections between the two poles (Arctic-Antarctic); and for botanical and invasive species studies" (Ministério da Defesa do Brasil 2021b, 11).

The "exchange of information between scientific communities in both poles" (Ministério da Defesa do Brasil 2021b, 23) is important for geopolitical and peacekeeping purposes in the South Atlantic –declared in 1986 by the UN General Assembly (A/RES/41/11) a zone of peace and cooperation, and still recognized as a regional strategic surrounding by the *Brazilian National Defense Policy* (Ministério da Defesa do Brasil 2020, 77). Thus, Brazilian research in the Arctic and the exchange of information between both poles can give "subsidies to develop scenarios for South America and Antarctica" (Ministério da Defesa do Brasil 2021b, 22) and help Brazil to predict natural and political challenges (escalation of national and regional conflicts) derived from global warming (Ministério da Defesa do Brasil 2021b, 11; Ministério da Defesa do Brasil 2020, 16-21).

The effects of sea-level rise caused by sea-ice melt reveal socio-environmental interests of Brazil in the Arctic. As recognized by the 2017 Belém Statement on Atlantic Research and Innovation Cooperation, scientific research must understand "the interrelations between oceans and climate change [... and] the dynamics of the Atlantic Ocean and its interconnected Circulation Systems from Antarctica to the Arctic" (European Union 2017, 2). Indeed, Brazil has a coastline of 8,500 km and circa 60% of its population lives in coastal areas (Alisson 2017). Sea-level rise might increase the risk of natural disasters and social conflicts (Muelbert 2019, 431-5; Tagliani 2019, 265-8) and reduce about 18% in agricultural yields per hectare in Brazil (Assunção and Chein 2016).

The Arctic also presents an economic opportunity for Brazil (Ministério da Defesa do Brasil 2022; Ministério da Defesa do Brasil 2021b, 23). Holding almost 30% of the world's unproven natural gas reserves and 13% of the world's unproven oil reserves (Gautier et al. 2009), Brazil can contribute to energy exploitation in the region by using its knowledge in hydrocarbon exploitation (Lagutina and Leksyutina 2019). Furthermore, considering that it was recently the eighth largest energy consumer country in the world (British Petroleum 2020) – being oil and gas 49% of the total (US Energy Information Administration 2021), Brazil can diversify the source of energy supply.

China also has multi-domain interests in the Arctic. After joining the ST in 1925, China became a member of the *International Arctic Science Committee* (IASC) in 1996, and, since 2013, it enjoys observer *status* at the AC.

The scientific agenda is at the center of Chinese interests over the region. Since 1999 it conducted 12 Arctic scientific expeditions with the *Xuelong* or *Xuelong 2* polar research vessels (Wu 2021) and reached outcomes in many scientific fields: Arctic sea-ice, atmosphere, biology, chemistry, and geology (Mammadli and Kalfaoglu 2021, 181). This culminated in the establishment of the *Yellow River Research Station* in Svalbard in 2004 (Rashmi 2019, 1-2 and 11).

China also possesses shipping interests in the Artic. Considering that "90% of all world trade goes between Asia, Europe and North America" (Ushakova 2021, 115), the opening of the Northern Sea Route (NSR) will create a shortcut to connect Eurasia. In July 2017, China declared that it would build with Russia a *Polar Silk Road* (PSR) through the Arctic shipping route (Rashmi 2019, 11-4) to enhance transport security, reduce transport costs, among others (Ushakova 2021, 110-3).

The presence of gas, oil, and mineral resources unravels Chinese economics interests in the Arctic. As a major energy-demanding country (Rashmi 2019, 12), China seeks to cooperate with Arctic countries to ensure energy security for itself and for them (Ushakova 2021, 114 and 117-20). Chinese foreign investment enabled Russian companies to exploit these resources (Lagutina 2019, 64-5, 131-2 and 138-41; Rashmi 2019, 13-4; Seliverstov and Krivonosov 2019; Ushakova 2021; Yermakova 2020, 27), alongside with similar bilateral initiatives undertaken with Canada and Denmark (Rashmi 2019, 14-5).

Finally, China presents itself as a near-Arctic state due to it is proximity to the Arctic Circle on land. Melting sea-ice will also impact climate in middle and low latitudes of the Northern Hemisphere (Wu 2018). For this reason, China asserts socio-environmental interests over the Arctic, as climate change will impact China's agricultural and fisheries production, food security, and development (Lagutina and Leksyutina 2019, 10; Rashmi 2019, 11; Ushakova 2021, 115-6).

Strategic Implications: Mutual Support and Global Consequences

Brazil was traditionally regarded as a "well-placed" state in foreign affairs (Guimarães 2020) because its foreign policy was guided by legal discourse, multilateralism, pacific settlement of disputes, solidarity with emerging economies (Ricupero 2017), the defense of sustainable development and the fight of climate change (Barbosa 2022).

Inspired by the US's far-right populism, Jair Bolsonaro's government (2018-2022) forced an ultra-conservative agenda in Brazilian foreign policy and modified its geopolitical placement (Guimarães and Dutra 2021). This unusual trajectory led to the diminishment of Brazil's recognition as a world leader in the fight of climate change (Modesti and Giannattasio 2022) and motivated some actors to raise the "responsibility to protect" argument to justify military intervention in

Brazil to secure global climate security (Macedo 2021). Furthermore, before and during COVID-19 crisis, following US foreign policy at that time, members of Bolsonaro's government erected China as an ideological rival – a clear breach of Brazil's tradition in foreign policy (Amorim and Ferreira-Pereira 2021, 13; Guimarães and Dutra 2021).

Luiz Inácio Lula da Silva took office in January 2023 as Brazil's new President and signaled the return of the country to its geopolitical "well-placement" (Zee et al. 2022). A friendly and peaceful rapprochement with China over Arctic affairs is an opportunity to create a favorable geopolitical environment for Brazil to resume its traditional geopolitical position and to signal the return to institutional normality. Moreover, by engaging in Arctic affairs with China's trust-building strategy at the AC (Su and Mayer 2018), Brazil can rebuild the image of a relevant public goods supplier and build among the Arctic countries the willingness to cooperate with Brazil as desirable observer in the AC.

Since 1983 Brazil consolidated a relevant tradition in polar sciences via PROANTAR (Câmara et al. 2022, 9). This is an explicit justification for adhering to the ST, carrying out scientific research in the archipelago in a regular and institutional basis (Ministério da Defesa do Brasil 2022), and getting closer to the AC and to Arctic scientific communities (Ministério da Defesa do Brasil 2021b, 3 and 20-3).

There is thus a clear orientation for Brazil to develop scientific research in the Arctic. Indeed, PROANTAR and AWG proposed that Brazil must promote Arctic science – either within PROANTAR itself, or via specific calls from the Brazilian Government (Ministério da Defesa do Brasil 2021b, 23-4; Ministério da Ciência, Tecnologia e Inovação do Brasil 2013, 2 and 25). However, PROANTAR "receives intermittent funds, a portion of which needs to be approved annually by Congress as a budgetary amendment. This means that the programme lacks financial security" (Sampaio et al. 2017, 302). This uncertainty reduces the possibility of developing technologies and training and maintaining in Brazil human resources with proper polar expertise (Câmara et al 2022, 9-11).

Scientific cooperation between Brazil and China in polar research is not a novelty: both countries already engaged in joint research activities in Antarctica (Polejack and Barros-Platiau 2020, 54-5). However, it can also reach polar science in the Arctic and reduce and share costs related to the development of polar research – a strategy also undertaken by the Arctic countries (Everett and Halašková 2022, 8). Both countries also have a good history of cooperation in Antarctic infrastructure. After the first Brazilian Antarctic Scientific Research Station was destroyed by fire in 2012, China National Electronics Import and Export Corporation (CEIEC) won the tender to rebuild it and completed the reconstruction on January 15, 2020 (Marinha do Brasil. 2020).

Cooperation with Brazil in Arctic affairs also creates a favorable geopolitical environment for China to mitigate the negative effects of the *China threat theory*. More of a misleading ideological (and xenophobic) discourse than a theory, it assumes that the consolidation of China

as a post-western power in the 21st century will be accomplished by violations of international law by China (Al-Rodhan 2007; Deng 2008).

In Arctic affairs, even though China constantly affirms its respect to the sovereign rights of Arctic states over their territories in the region (Lagutina 2019, 139; Rashmi 2019, 11-3 and 16), the so-called theory sustains the perception that China has neocolonial ambitions towards the region (Rashmi 2019, 15) and builds a "New Cold War" against the US (Ushakova 2021, 116-7; Yermakova 2020, 15-8). Having Brazil as its active partner in Arctic affairs might help China unravelling the misperceptions of this discourse. Indeed, the presence of Brazil in polar affairs within the ATS never sought to impair territorial claims of any country or to violate the ATS's international legal framework (Casella et al. 2021, 61-7). Thus, cooperating with Brazil in Arctic affairs will enhance general understanding about China's policy of "respect, cooperation, win-win result, and sustainability" (State Council Information Office 2018).

Strengthening scientific research is the main path for China's participation in Arctic affairs (Roberts and Paglia 2016) to preserve local environmental and fight the effects of climate change. Brazil has thus a valuable asset for China in polar science due to its high-level experience in different polar-related topics, such as the cryosphere's impact on climate (García-Rodríguez et al. 2021), polar ecosystem (Gonçalves Jr. et al. 2022), ocean-atmosphere (Santos et al. 2020).

Brazil-China cooperation on Arctic affairs may also have strategic implications for the AC's institutional environment and help this IO to fulfill its legal mandate.

The escalation of the Russia-Ukraine conflict since 2014 (D'Anieri 2022) raised political and economic tensions between Russia and members of the EU and NATO (Loureiro 2022). From 2022 onwards, this situation led to the suspension of cooperation between these countries (Sêneca 2022) – a confrontation that also reached the Arctic (Ushakova 2021, 113). While the Ottawa Declaration (1996) does not allow the AC to deal with security issues, the Arctic states – except Russia – issued in 2022 a joint statement affirming a "temporarily paus[e] participation in all meetings of the Council and its subsidiary bodies." (Department of State of United States 2022).

The war in Ukraine led the AC to a standstill. However, the limits of the AC are older than this war: the legal and institutional problems in its governance mechanism already existed since its inception (Koivurova 2010, 146; Smieszek 2019, 121; Young 2012, 283-4). Being the main international framework capable of bringing together local stakeholders and creating regular conditions for a minimum degree of cooperation among them (Lagutina 2019, 108), the AC's governance system is based on a flawed institutional design which prevents this IO to fully accomplish its legal mandate (Intergovernmental Panel on Climate Change 2019, 269).

First, there is an institutional impairment for non-Arctic states to influence the AC's agenda substantively (Young 2012, 286-8). The IO is composed by: (i) eight Arctic states with voting rights, (ii) six Arctic indigenous organizations with permanent seats and no voting rights, and (iii) observer seats, also deprived of voting rights. Even though decision-making

processes within the AC enable actors other than Arctic states to take part in discussions, they have limited rights to attend meetings and to speak. Moreover, the right to make decisions – by consensus – is given solely to Arctic states (Casella et al. 2021, 57-61; Giannattasio et al. 2021; Smieszek 2019, 125-6).

The observer *status* is the only possibility for extraterritorial countries (and non-governmental organizations, interparliamentary organizations and IOs) to participate of the AC's activities. However, it is at the discretion of Arctic states to decide whether and how long they enjoy this *status*. Observers must present in their application their potential contributions to the AC and, if they want to keep this *status*, they must regularly report their activities. Finally, observers must re-state every four years their interest in this *status* (Graczyk and Koivurova 2014, 230-1).

Second, while the main mission of the AC is to promote sustainable development and environmental protection, this IO is deprived of legislative and enforcement powers. The resolutions adopted by the AC are "soft measures", with insufficient implementation and lacking supervision (Intergovernmental Panel on Climate Change 2019, 269-70; Kaufmann 2010; Smieszek 2019, 123-4 and 127-8; Young 2016, 107-8). This prevents the AC from fulfilling the mandate required from Arctic governance of "address[ing] cascading risks and uncertainty in an integrated and precautionary way within existing legal and policy frameworks" (Intergovernmental Panel on Climate Change 2019, 208).

Members of the international community argue that good governance in the Arctic requires active participation of non-Arctic states (Intergovernmental Panel on Climate Change 2019, 269-70). As members of the UN and parties to the UNCLOS, cooperation between Brazil and China in the AC is associated to the peaceful settlement of disputes under the regulation of both treaties and to the improvement of the AC's institutional conditions. This means that their cooperation in the Arctic is associated to the expansion of community interests in the AC via a multi-stakeholder approach of Arctic affairs.

Indeed, not only have Brazil and China both expressed their neutral position concerning the war in Ukraine (Mendes and Herz 2022; Santoro 2022), but they also drive their foreign policies according to the peaceful settlement of international disputes and fortification of international cooperation (Ministry of Foreign Affairs of the People's Republic of China 2016; Ricupero 2017) – means recently re-stated in their last bilateral meeting ("Brazil's President Lula makes third state visit to China." 2023; Ministry of Foreign Affairs of the People's Republic of China 2023). As for the AC's governance, China affirms that it will neither harm territorial claims from Arctic states, nor challenge their national sovereign rights over the region, or threat the traditions and cultures of Arctic indigenous peoples (State Council Information Office 2018). By its turn, Brazil recognizes that "the scenario of recent climate change in the Arctic may give rise to issues related to the governance of shared spaces", and that the accession to the ST "would facilitate its action on Arctic issues" (Ministério da Defesa do Brasil 2022).

The engagement of extraterritorial powers in Arctic affairs can balance interests within the AC and guarantee regional security and stability, just as occurred in the ATS. The AC's

counterpart in the South granted voting rights to states without territorial claims over Antarctica to cool down geopolitical tensions over the continent, enable the ATS to fulfill its legal mandate, and deal with local pressing issues other than economic and political conflicts over Antarctica (Wolfrum 2017).

Brazil-China cooperation in reforming the AC's institutional environment represents an important step towards this goal – and their previous experiences in the ATS's governance mechanism clarify their possible agenda. After Brazil entered the ATS, its role in it was not self-interested, did not challenge territorial claims and reinforced solidarity ties with developing countries. When discussions concerning the reform of the ATS's governance took place – sometimes with the involvement of China – Brazil sought to reinforce the institutional framework of this IO towards a more equitable and open regime for developing countries (Cardone 2022, 231; Casella et al. 2021, 61-8).

Challenges for Brazil-China engagement in Arctic Affairs

The full use of scientific ideas, legal expertise, technologies, and funds from different members of the international community is a crucial step for a proper governance of the Arctic. This multi-stakeholder approach provides an opportunity for Brazil and China to work together in distinct fields of interest in the region, but there are some challenges which might impair this agenda.

Based on their geographical position, Arctic states have sovereignty and sovereign rights over territories comprised within the Arctic region. Their territorial placement supports their claim of holding an exclusive identity of "Arctic states" *vis-à-vis* "non-Arctic states". This division has practical consequences, as it justifies the exclusivity of Arctic states in Arctic governance. Thus, geographical position presents to non-Arctic states – such as Brazil ad China – an identity challenge.

Identities have a political character and vary according to rebalances of political struggles. They are social constructions developed by collective imagination processes responsible for creating, affirming, and replicating a sense of belonging to certain groups and not others (Anderson 2020), as well as criteria and stereotypes for the association of an individual to certain groups and not to others (Adorno 2019). Identity has thus less to do with nature and more with collective choices for social pairing within (Honneth 2009) and between groups (Bhabha 2019). The political character of identities highlights that identities can vary due to rebalances of political struggles, and that no argument – such as geographical proximity/distance – is enough to sustain a supposed "natural" identity or sense of belonging.

China affirms that it is a "near-Arctic state" because it lies near the Arctic Circle on land. While this identity is largely contested by Arctic states, it is the basis for China's argument of being "an important stakeholder in Arctic affairs" (Rashmi 2019; Ushakova 2021; Yermakova 2020). If a similar identity claim cannot be invoked by Brazil, the country is following Norway's strategy

of associating science to Arctic affairs as a precedent to build "a sense of legitimate presence and stakeholdership" (Roberts and Paglia 2016, 894).

Brazilian tradition in polar science is an important asset, especially for the protection of the environment in Antarctica and Brazil (Cardone 2022, 160-1). The country resorts to this tradition to justify: (i) its adherence to the ST (Ministério da Defesa do Brasil 2022), and (ii) the possibility of getting closer to international cooperation mechanisms responsible for Arctic affairs (Ministério da Ciência, Tecnologia e Inovação do Brasil 2013, 2 and 25; Ministério da Defesa do Brasil 2021b, 3 and 20-1).

While the ATS consolidated the successful idea of resorting to science in polar affairs to weaken or overcome political disagreements among states (Polejack and Barros-Platiau 2020; Wolfrum, 2017), this approach was also adopted by the AC and is invoked as one of its main everyday features (Everett, Halašková 2022, 10-2). That is the reason why invoking science was a strategy previously adopted – with success – by China, India, Italy, Japan and South Korea to acquire and enjoy the observer *status* within the AC (Roberts and Paglia 2016, 904).

Identity is – as it always was – a political choice. To possess and indicate in a substantial way "important interests in the Arctic" other than territorial claims can reframe the idea of "Arctic identity" by downplaying geographical proximity as the justification whether or not to authorize a stakeholder to effectively participate and vote in Arctic affairs. Indeed, the distance of the Outer Space, Moon and Celestial Bodies from Earth did not prevent the creation of a "humankind heritage" identity around them (Launius 2017).

Having long dominated Arctic affairs, Arctic countries are reluctant to full-fledged involvement of extraterritorial countries in the region. The reasons for such hesitation can be summarized as follows: first, there is fear that their own national interests over the region might be impaired; second, the participation of other global players in the region can threaten the consensus so far achieved for the AC's legal mandate and governance system; third, the presence of a larger number of actors might make it more difficult to negotiate and achieve new consensus in the future (Graczyk and Koivurova 2014, 229-30; Guo and Yang 2022).

Such hesitation also presents a challenge to Brazil and China to engage in Arctic affairs. However, bearing in mind the experience of China in approaching the region in accordance with a trust-building driver (Su and Mayer 2018), both countries should thus repeatedly (i) reiterate their respect to the legitimate rights of the Arctic countries, (ii) demonstrate their demeanor as responsible observers, (iii) emphasize the multi-domain advantages they represent for all stakeholders, (iv) strengthen cooperation in the region with the Arctic countries, and (v) increase trust and dispel doubts among non-Arctic countries.

Hesitation over Brazil-China participation in the AC should also be downplayed. As indicated above, their presence might inject new elements into Arctic governance and give this IO better institutional conditions to fulfill its legal mandate. Both countries approach Arctic affairs via a trust building discourse through science and do not seek to harm the rights and interests of the

Arctic states in the region. Thus, their joint and active participation in the AC is associated with the progressive inclusion of community interests in Arctic affairs.

Conclusion

The effects of climate change revealed economic opportunities in the Arctic – a process that raised the attention of distinct members of the international community (state and non-state actors). The incidence of different interests, perspectives and normativities in the region beyond the national interests of the Arctic countries highlights that it bears a multistakeholder condition.

This paper focused on possible cooperation between Brazil and China in Arctic affairs, taking into consideration previous successful cooperation initiatives between these two countries and joint statements for a deeper strategic partnership. After discussing Brazilian and Chinese interests over the region, the paper identified synergies in geopolitical, scientific, and economic fields for self and mutual interests, and argued that this cooperation might enhance the AC's governance mechanism.

Despite identity and hesitation challenges for a joint Brazil-China effort in Arctic affairs, and bearing in mind their previous successful cooperation experiences in polar affairs, Brazil-China strategic cooperation is capable of injecting new elements in the governance of the AC and provide better institutional conditions for this IO to achieve community interests and fulfill its legal mandate.

References

- Abdenur, A. E. "Can the Brics cooperate in international security?" *International Organisations Research Journal* 12, no. 3 (2017): 73-93. doi: https://doi.org/10.17323/1996-7845-2017-03-73
- Abdenur, A. E. "Emerging powers and the creation of the UN: three ships of Theseus." *Third World Quarterly* 37, no. 7 (2016): 1171-1186. doi: https://doi.org/10.1080/01436597.2016.1154432
- Abdenur, A. E. "Navigating the ripple effects: Brazil-China relations in light of the belt and road initiative (BRI)." *International Relations* 12, no. 2 (2019): 153-168. doi: https://doi.org/10.21638/11701/spbu06.2019.203
- Adorno, T. *Estudos sobre a personalidade autoritária*. São Paulo: Universidade Estadual Paulista, 2019.
- Alisson, E. "Nível do mar na costa brasileira tende a aumentar nas próximas décadas." *Agência FAPESP*, June 5, 2017. Accessed December 20, 2022. https://shorturl.at/egCO3

- Al-Rodhan, K. "A critique of the China threat theory: a systematic analysis." *Asian Perspective* 31, no. 3 (2007): 41-66. doi: https://doi.org/10.1353/apr.2007.0011
- Amorim, S., and L. Ferreira-Pereira. "Brazil's quest for autonomy in Asia: the role of strategic partnerships with China and Japan." *Revista Brasileira de Política Internacional* 64, no. 2 (2021): 1-21. doi: https://doi.org/10.1590/0034-7329202100203
- Anderson, D. Comunidades imaginadas. São Paulo: Cia. das Letras, 2020.
- Antrim, C. "The russian arctic in the twenty-first century." In Arctic security in an age of climate change, edited by J. Kraska, 107-28. Cambridge: Cambridge University, 2011.
- Arctic Council. Compilation of observer regular reports (2019-2021). Tromsø, 2021.
- Arctic Council. The increase in arctic shipping 2013-2019: arctic shipping status report #1. Tromsø, 2020.
- Assunção, J., and F. Chein. "Climate change and agricultural productivity in Brazil: future perspectives." *Environment and Development Economics* 21, no. 5 (2016): 581-602.
- Babin, J. "Diplomatie scientifique et engagement du Japon dans l'Arctique. l'Exemple du conseil de l'Arctique." *Relations Internationales* 2, no. 178 (2019): 119-133.
- Barbosa, R. "Apresentação" In *Diplomacia ambiental*, edited by W. Duleba and R. Barbosa, 15-17. São Paulo: Blucher, 2022.
- Bath, V. "The South and alternative models of trade and investment regulation: chinese investment and approaches to international investment agreements" In *Reconceptualizing international investment law from the global south*, edited by F. Morosini, and M. Badin, 95-145. Cambridge: Cambridge University, 2017.
- Becard, D. "O que esperar das relações Brasil-China?" Revista de Sociologia Política 19, suppl. 1 (2011): 31-44. doi: https://doi.org/10.1590/S0104-44782011000400004
- Bhabha, H. K. "Interrogando a identidade: Frantz Fanon e a prerrogativa pós-colonial" In *O local da cultura*, edited by H. K. Bhabha, 77-115, 2nd ed. Belo Horizonte: Universidade Federal de Minas Gerais, 2019.
- "Brazil's President Lula makes third state visit to China." *External Relations*, April 10, 2023. Accessed April 18, 2023. https://shorturl.at/qIQ38
- Brazil, Russia, India, China and South Africa Brics. 5th coordinated call for Brics Multilateral Projects 2021. Moscow, 2021.
- Brazil, Russia, India, China and South Africa Brics. *Cape Town declaration*. Cape Town, 2014.
- Brazil, Russia, India, China and South Africa Brics. Science, technology, and innovation work plan 2015-2018. Moscow, 2015.
- British Petroleum BP. Statistical review of world energy. London, 2020.
- Câmara, P., A. Giannattasio, and F. Quaglio. "Antártica: soberania, geopolítica e mudança climática." *Soberania & Clima*, 2022.
- Cardone, I. The Antarctic politics of Brazil. Cham: Palgrave Macmillan, 2022.

- Casella, P., M. Lagutina, and A. Giannattasio. "Brics' interests and Brazilian prospects for mixed governance structures in the Arctic and in Antarctica." In *Challenges and development prospects within Brics countries*, edited by P. Casella, E. Bueno, and W. Künzli, 43-76. Belo Horizonte: D'Plácido, 2021.
- Castro, D., and R. Wang. "Translocal implications of the green belt and road initiative: The China-Pakistan economic corridor case." *Beijing Law Review* 14, no. 1 (2023): 402-432. doi: http://doi.org/10.4236/blr.2023.141022
- Castro, D., and S. Zhang, "Ecological civilization and belt road initiative: a case study." *Cadernos do CEAS* 47, no. 255 (2022): 218-239.
- Castro, D., D. Denny. "Economic relationship between Brazil and China: an empirical assessment using sentiment and content analysis." *Beijing Law Review* 11, no. 1 (2020): 227-243. doi: http://doi.org/10.4236/blr.2020.111016
- D'Anieri, P. "Ucrânia e Rússia dos acordos de Minsk à invasão de 2022." In *Linha vermelha*, edited by F. Loureiro, 69-86. São Paulo: Universidade de Campinas, 2022.
- Dann, P., and M. Riegner. "The World Bank's environmental and social safeguards and the evolution of global order." *Leiden Journal of International Law* 32, no. 3 (2019): 537-559. doi: https://doi.org/10.1017/S0922156519000293
- Deng, Y. "Reacting to 'China threat theories'." In *China's struggle for status*, edited by Y. Deng, 97-127. Cambridge: Cambridge University, 2008.
- Dubreuil. A. "The Arctic of the regions: between indigenous peoples and subnational entities: which perspectives?" *International Journal* 66, no. 4 (2011): 923-938. doi: https://doi.org/10.1177/002070201106600418
- European Commission EC. A stronger EU engagement for a peaceful, sustainable and prosperous Arctic. Brussels, 2021.
- European Commission EC. Developing a European Union policy towards the Arctic Region: progress since 2008 and next steps. Luxembourg, 2012.
- European Union EU. Belém statement on Atlantic research and innovation cooperation. Lisbon, 2017.
- Everett, K., and B. Halašková. "Is it real? Science diplomacy in the Arctic states' strategies." *Polar Record* 58 (2022): 1-12. doi: https://doi.org/10.1017/S0032247422000183
- García-Rodríguez, F., C. Piccini, D. Carrizo, L. Sánchez-García, L. Pérez, C. Crisci, A. B. Joaquim, H. Evangelista, A. Soutullo, G. Azcune, and S. Lüning. "Centennial glacier retreat increases sedimentation and eutrophication in Subantarctic periglacial lakes: A study case of Lake Uruguay." *Science of The Total Environment* 754 (2021): 1-15. doi: https://doi.org/10.1016/j.scitotenv.2020.142066
- Gautier, D., K. J. Bird, R. R. Charpentier, A. Grantz, D. W. Houseknecht, T. R. Klett, T. E. Moore, J. K. Pitman, C. J. Schenk, J. H. Schuenemeyer, K. Sorensen, M. E. Tennyson, Z. C. Valin, and C. J. Wandrey. "Assessment of undiscovered oil and gas in the Arctic." Science 324, no. 5931 (2009): 1175-1179. doi: https://doi.org/10.1126/science.1169467

- Giannattasio, A., D. Drezza, and M. Wehby. "In/on applied legal research: pragmatic limits to the impact of peripheral international legal scholarship via policy papers." *Leiden Journal of International Law* 34, no. 3 (2021): 571-583. doi: https://doi.org/10.1017/S0922156521000315
- Gonçalves Jr., S., N. Magalhães, R. C. Charello, H. Evangelista, and R. H. M. Godoi. "Relative contributions of fossil fuel and biomass burning sources to black carbon aerosol on the Southern Atlantic Ocean Coast and King George Island (Antarctic Peninsula)." *Anais da Academia Brasileira de Ciências* 94, suppl. 1 (2022): 1-20. doi: https://doi.org/10.1590/0001-3765202220210805
- Graczyk, P., and T. Koivurova. "A new era in the Arctic Council's external relations? Broader consequences of the Nuuk observer rules for Arctic governance." *Polar Record* 50, no. 3 (2014): 225-236. doi: https://doi.org/10.1017/S0032247412000824
- Guimaráes, F. "The uneasy 'well-placed' state: Brazil within Latin America and the West." *Cambridge Review of International Affairs* 33, no. 4 (2020): 1-17. doi: https://doi.org/10.1080/09557571.2020.1723059
- Guimarães, F., and I. Dutra. "Far-right populism and foreign policy identity: Jair Bolsonaro's ultra-conservatism and the new politics of alignment." *International Affairs* 97, no. 2 (2021): 345-363. doi: https://doi.org/10.1093/ia/iiaa220
- Guo, P. "An analysis of new criteria for permanent observer status on the Arctic Council and the road of non-arctic states to Arctic." *International Journal of Maritime Affairs and Fisheries* 4, no. 2 (2012): 21-38. doi: https://doi.org/10.54007/ijmaf.2012.4.2.21
- Guo P., and Yang N. "Russia's chairmanship of the Arctic Council and the adjustment of its Arctic policy." *International Forum* 2 (2022): 156-157.
- Ho, J. "The Arctic meltdown and its implication for ports and shipping in Asia." In *Arctic Security in an Age of Climate Change*, edited by J. Kraska, 33-43. Cambridge: Cambridge University, 2011.
- Honneth, A. A luta por reconhecimento. 2nd ed. São Paulo: 34, 2009.
- Intergovernmental Panel on Climate Change IPCC. Climate change 2022: Impacts, Adaptation and Vulnerability. Geneva, 2022.
- Intergovernmental Panel on Climate Change IPCC. Special report on the ocean and cryosphere in a changing climate. Geneva, 2019.
- Joyner, C. "United States foreign policy interests in the Arctic." *The Polar Journal* 1, no. 1 (2011): 17-35.
- Kaufmann, S. "L'Océan Arctique et la coopération intergouvernementale non- contraignante." Revue Juridique de l'Environnement 35, no. 4 (2010): 627-641.
- Koivurova, T. "Limits and possibilities of the Arctic Council in a rapidly changing scene of Arctic governance." *Polar Record* 46, no. 2 (2010): 146-156. doi: https://doi.org/10.1017/S0032247409008365

- Kuang Z. J., and Ou K F. "The Arctic: A new frontier for Brics cooperation." *Philosophy and Social Science* 40, no. 1 (2018): 80-86.
- Lagutina, M. Russia's Arctic policy in the twenty-first century. London: Lexington, 2019.
- Lagutina, M., and Y. Leksyutina. "Brics countries' strategies in the Arctic and the prospects for consolidated Brics agenda in the Arctic." *The Polar Journal* 9, no. 1 (2019): 45-63. doi: https://doi.org/10.1080/2154896X.2019.1618559
- Launius, R. "Establishing open rights in the Antarctic and outer space: Cold War rivalries and geopolitics in the 1950s and 1960s." In *Handbook on the Politics of Antarctica*, edited by K. Dodds, A. Hemmings, and P. Roberts, 217-31. Cheltenham: Edgard Elgar, 2017.
- Loureiro, F. "A guerra da Ucrânia e as relações Rússia-Estados Unidos: uma nova guerra fria?" In *Linha Vermelha*, edited by F. Loureiro, 355-376. São Paulo: Universidade de Campinas, 2022.
- Macedo, G. "Climate security, the Amazon, and the responsibility to protect." *Brazilian Political Science Review* 15, no. 3 (2021): 1-27. doi: https://doi.org/10.1590/1981-3821202100020007
- Mammadli, R., R. Kalfaoglu. "Brics in the Arctic: the member-states' interests and the group's disregard." *Contemporary Chinese Political Economy and Strategic Relations:* An International Journal 7, no. 1 (2021): 175-206.
- Marinha do Brasil. *Nova Estação Antártica Comandante Ferraz*. Brasília, 2020. Accessed April 19, 2023. https://shorturl.at/ilRV0
- Mendes, I., and M. Herz. "O Brasil e a guerra na Ucrânia." In *Linha Vermelha*, edited by F. Loureiro, 295-311. São Paulo: Universidade de Campinas, 2022.
- Ministère de L'Europe et des Affaires Étrangères MEAE. *Traités et accords de la France:* notice TRA19200018. Accessed December 20, 2022. https://shorturl.at/rsF01
- Ministério da Ciência, Tecnologia e Inovação do Brasil. *Ciência Antártica para o Brasil: plano de ação (2013-2022)*. Brasília, 2013.
- Ministério da Defesa do Brasil. Resolução no. 4, May 18, 2021. Aprova a criação do Grupo Técnico (GT) sobre Atividades no Ártico. *Diário Oficial da União*, June 7, 2021a.
- Ministério da Defesa do Brasil. 4º relatório parcial do GT sobre atividades no Ártico. Brasília, 2021b.
- Ministério da Defesa do Brasil. *Política nacional de defesa / estratégia nacional de defesa*. Brasília, 2020.
- Ministério da Defesa do Brasil. Resolução no. 4, May 17, 2022. Ratifica a adesão do Brasil ao Tratado de Svalbard. *Diário Oficial da União*, June 22, 2022.
- Ministério de Relações Exteriores do Brasil. "Brazil-China joint statement on combating climate change" *Press Release* 134, April 14, 2023. Accessed April 19, 2023. https://shorturl.at/bsEJN
- Ministério de Relações Exteriores do Brasil. "Relações bilaterais: República Popular da China." *Portal Gov*, November 3, 2022. Accessed December 20, 2022. https://www.gov.br/mre/pt-br/assuntos/relacoes-bilaterais/todos-os-paises/republica-popular-da-china

- Ministry of Foreign Affairs of the People's Republic of China. Long-term stable and mutually beneficial strategic partnership between China and Brazil. Beijing, 2000.
- Ministry of Foreign Affairs of the People's Republic of China. *President Xi Jinping holds talks with brazilian President Lula da Silva*. Beijing, 2023. Accessed April 19, 2023. http://surl.li/gmhrc
- Ministry of Foreign Affairs of the People's Republic of China. The declaration of the People's Republic of China and the Russian Federation on the promotion of international law. Beijing, 2016.
- Modesti, T., and A. Giannattasio. "Parlamentos nacionais e política externa sobre meio ambiente: demandas de dois níveis nas reações da França, dos Países Baixos e do Reino Unido à política brasileira sobre recursos amazônicos entre 2012 e 2021." *Boletim de Economia e Política Internacional* 34 (2022): 75-101. doi: https://doi.org/10.38116/bepi34art4
- Morosini, F., and M. Badin. *Direito das relações econômicas Brasil-China*. Rio de Janeiro: Lumen Juris, 2022.
- Muelbert, J. "Mudanças climáticas." In *O Brasil e o mar no século XXI*, edited by Centro de Excelência para o Mar Brasileiro, 423-436, 2nd ed. Rio de Janeiro, 2019.
- National Snow and Ice Data Center NSIDC. Arctic sea ice at minimum extent for 2020. Washington, 2020. Accessed December 20, 2022. http://nsidc.org/arcticseaicenews/2020/
- National Snow and Ice Data Center NSIDC. Springtime in the Arctic. Washington, 2022. Accessed December 20, 2022. http://nsidc.org/arcticseaicenews/2022/05/springtime-in-the-arctic/
- Oliveira, P., G. Rigote, D. Freitas, N. Marques, and A. Machado. "Produção e composição de alimentos." In *Precisamos falar sobre as mudanças climáticas*, edited by Núcleo de Apoio às Atividades de Cultura e Extensão Sustentarea, 14-7. São Paulo: Universidade de São Paulo, 2020.
- Peng, G., J. L. Matthews, M. Wang, R. Vose, and L. Sun. "What do global climate models tell us about future Arctic Sea ice coverage changes?" *Climate* 8, no. 1 (2020): 1-24. doi: https://doi.org/10.3390/cli8010015
- Polejack, A., and A. Barros-Platiau. "A ciência oceânica como ferramenta de cooperação e diplomacia no Atlântico." In *Conservation of living resources in areas beyond national jurisdiction: BBNJ and Antarctica*, edited by A. Barros-Platiau, and C. Oliveira, 45-65. Rio de Janeiro: Lumen Juris, 2020.
- Rashmi, B. "China in the Arctic: interests, strategy and implications." *Occasional Paper* 27 (2019): 1-27.
- Ricupero, R. A diplomacia na construção do Brasil (1750-2016). Rio de Janeiro: Versal, 2017.
- Roberts, P., and E. Paglia, "Science as national belonging: the construction of Svalbard as a Norwegian space." *Social Studies of Science* 46, no. 6 (2016): 1-18. doi: https://doi.org/10.1177/0306312716639153

- Sampaio, D., I. Cardone, and A. Abdenur. "A modest but intensifying power? Brazil, the Antarctic treaty system and Antarctica." In *Handbook on the politics of Antarctica*, edited by K. Dodds, A. Hemmings, and P. Roberts, 301-17. Cheltenham: Edgard Elgar, 2017.
- Santoro, M. "A China e a guerra na Ucrânia." In *Linha Vermelha*, edited by F. Loureiro, 275-294. São Paulo: Universidade de Campinas, 2022.
- Santos, E., H. Evangelista, C. M. Valeriano, C. C. Aguiar Neto, A. Castagna, and M. Heilbron. "Origin and radiogenic isotope fingerprinting of aerosols over the Southwestern Atlantic and corresponding southern ocean sector." *Aeolian Research* 45 (2020): 1-9. doi: https://doi.org/10.1016/j.aeolia.2020.100596
- Santos, L., E. Souza Júnior, E. E. Filippi, and J. C. Simões. "O Brasil e o Ártico." *Finisterra* 53, no. 107 (2018): 125-39. doi: https://doi.org/10.18055/Finis11943
- Seliverstov, Z., and V. Krivonosov. "Structuring chinese energy investments under the Russian law on strategic investments." *Journal of World Investment & Trade* 20, no. 2-3 (2019): 355-374. doi: https://doi.org/10.1163/22119000-12340135
- Sêneca, S. "A guerra russa na Ucrânia e a confrontação estratégica com o ocidente." In *Linha Vermelha*, edited by F. Loureiro, 243-258. São Paulo: Universidade de Campinas, 2022.
- Smieszek, M. "Do the cures match the problem? Reforming the Arctic Council." *Polar Record* 55 no. 3 (2019): 121-131. doi: https://doi.org/10.1017/S0032247419000263
- State Council Information Office of the People's Republic of China. White paper on China's Arctic Policy. Beijing, 2018.
- State Council of the People's Republic of China. Joint statement on further deepening the comprehensive strategic partnership between China and Brazil. Beijing, 2014.
- Stuenkel, O. "New development banks as horizontal international bypasses: towards a parallel order?" *AJIL Unbound* 111 (2017): 236-240. doi: https://doi.org/10.1017/aju.2017.62
- Stuenkel, O. "The Brics and the future of global order." In *The Brics and the future of global order*, edited by O. Stuenkel, 147-163. Lanham: Lexington, 2015.
- Stuenkel, O. "The Brics: seeking privileges by constructing and running multilateral institutions." *Global Summitry* 2, no. 1 (2016b): 38-53. doi: https://doi.org/10.1093/global/guw008
- Stuenkel, O. Post-western world: how emerging powers are remaking global order. Cambridge: Polity, 2016a.
- Su, P., and M. Mayer. "Science diplomacy and trust building: 'Science China' in the Arctic." *Global Policy* 9, no. 3 (2018): 23-28. doi: https://doi.org/10.1111/1758-5899.12576
- Tagliani, P. "Ecossistemas costeiros." In *O Brasil e o mar no século XXI*, edited by Centro de Excelência para o Mar Brasileiro, 251-274, 2nd ed. Rio de Janeiro, 2019.
- United Nations UN. Comprehensive Global Trade Data Platform. New York, 2022. Accessed December 22, 2022. https://comtradeplus.un.org/.

- Department of State of United States. *Joint statement on Arctic Council cooperation* following Russia's invasion of Ukraine. Washington, 2022. Accessed December 20, 2022. https://shorturl.at/muvB3
- US Energy Information Administration EIA. *International: Brazil*. Washington, 2021. Accessed December 20, 2022. https://shorturl.at/buMV7
- Ushakova, E. "Arctic frontier: ice silk road and its role in China's advance to the Arctic." *Artic and the North* 43, no. 43 (2021): 109-122, 2021. doi: https://doi.org/10.37482/issn2221-2698.2021.43.128
- Vazquez, K. «Brazil–China relations: contestation, adaptation, or transformation?" In *The China question*, edited by D. Pavlićević, and N. Talmacs, 201-222. Singapore: Palgrave Macmillan, 2022.
- Vazquez, K. "Impacto no desenvolvimento, Parceria Público-Privada e integração regional: caminhos possíveis para o novo banco de desenvolvimento do Brics." *Revista Tempo do Mundo*, no. 22 (2020): 175-188. doi: https://doi.org/10.38116/rtm22art8
- Vazquez, L. "Brazil and Brics multilateralism à la carte: from bilateralism to community interests." Global Policy 12, no. 4 (2021): 534-538. doi: https://doi.org/10.1111/1758-5899.12969
- Wolfrum, R. "Common interest and common heritage in Antarctica." In *Handboook on the politics of Antarctica*, edited by K. Dodds, A. Hemmings, and P. Roberts, 142-152. Cheltenham: Edgard Elgar, 2017.
- World Health Organization WHO, and World Meteorological Organization WMO. *Atlas of health and climate*. Geneva, 2012.
- World Meteorological Organization WMO. 2019 State of climate services: agriculture and food security. Geneva, 2019.
- World Meteorological Organization WMO. 2022 state of climate services: energy. Geneva, 2022b.
- World Meteorological Organization WMO. Provisional state of the global climate. Geneva, 2022a.
- Wu, B. "Progresses in the impact study of Arctic sea-ice loss on wintertime weather and climate variability over East Asia and key academic disputes." *Chinese Journal of Atmospheric Sciences* 42, no. 4 (2018): 786-805. doi: https://doi.org/10.3878/j.issn.1006-9895.1804.17262
- Wu, Y. "China's self-developed AUV shows impressive capabilities in latest Arctic scientific expedition." *People's Daily Online*, October 30, 2021. Accessed December 20, 2022. https://shorturl.at/cikzX
- Yermakova, Y. "The Arctic: press, policy and the Arctic Council" *The Yearbook of Polar Law Online* 11, no. 1 (2020): 15-38.
- Young, O. "Listening to the Voices of Non-Arctic States in Arctic Ocean Governance" In *The Arctic in World Affairs: A North Pacific Dialogue on Arctic Marine Issues*, edited by O. Young, J. Kim, and Y. Kim, 275-303. Seoul: Korea Maritime Institute, 2012.

- Young, O. "The Arctic Council at twenty: how to remain effective in a rapidly changing environment." *UC Irvine Law Review* 6, no.1 (2016): 99-119.
- Zee, B., P. Greenfield, and D. Gayle. "Lula says 'Brazil is back" as he vows to reverse Amazon deforestation." *The Guardian*, November 16, 2022. Accessed December 20, 2022. https://shorturl.at/isvw1
- Zhao, J. "China and Brazil look forward to closer future ties." *China Daily*, May 24, 2022. Accessed December 20, 2022. https://shorturl.at/bvENU