



# Expansion of tourist attractions from a gravitational area: The case of Sant'Ana cathedral in Ponta Grossa – PR

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## ABSTRACT

This paper presents the results achieved through the proposal of technical outputs that occur in the Bachelor's degree in Tourism at the Universidade Estadual de Ponta Grossa (UEPG) with the goal to observe the reality *in loco* and the application of theoretical knowledge in an empirical way, aiming to prepare academics to perform better in the job market.

Keywords: Tourism, Sant'Ana Cathedral, Cultural heritage.

# **1 INTRODUCTION**

This paper presents the results achieved through the proposal of technical outputs that occur in the Bachelor's degree in Tourism at the Universidade Estadual de Ponta Grossa (UEPG) with the goal to observe the reality *in loco* and the application of theoretical knowledge in an empirical way, aiming to prepare academics to perform better in the job market.

In this way, the professors responsible for the subjects of Tourism Planning, Tourism Laboratory in Urban Areas and Tourism Heritage jointly developed a practical activity, where students were encouraged to analyze the concepts of itineraries, cultural heritage, attractions and tourist resources, to then verify them in on site and with that, propose the use of the main church of Ponta Grossa – PR – Sant'Ana Cathedral, in addition to its function as a solely religious resource, being able to bring together different audiences within itself, and with this, diversify its use and demand for it.

Other actions developed by the Tourism course already involved itineraries where the Cathedral was visited, as in the extension project "Conhecendo PG", however the tour focused solely on the interior of the church, and on a few occasions, visits to the basement, where the ossuary is located. In all the visits guided by the course students, it was observed that tourists really enjoyed visiting the ossuary precisely because it is not a place open to the public. Even in outdoor monuments, it is possible to notice that the local community, for the most part, does not know the attractions, monuments or even their history, always asking questions to find out more about the city they live in.

We consider this practical exercise as a fundamental part of promoting students' *reflective praxis*, since there is need to bring together theoretical concepts and the reality presented, without, therefore, a universal resolution to the proposed problem, which was: 'How can the attractive Sant'Ana Cathedral motivate knowledge and visitation of other tourist elements in its surroundings?' This premise led to the chaining of specific objectives: grouping tourist elements around Sant'Ana Cathedral with potential for visitation, diversifying the flow of visitors to the Sant'Ana Cathedral and; verify the ability to analyze and solve problems based on reality.

There are many elements of historical and tourist interest in the city that end up being little observed and little impressed, which is why we have to consider that activities in urban areas are important and that, in general, they are easier accessible for tourists. Thus, an itinerary could be created to visit Ponta Grossa's historical heritage sites nearby the Cathedral, where it is possible to observe several mansions from the 40s or 50s in addition to learning about the city's history. With previously defined days and times and available on a website, where the person or group who is interested can sign up to see the heritage sites, either guided or self-guided. That said, the next topic will detail the methodology of the study, followed by the development based on the literature and current state of the art, results and final considerations.

## 2 METHODOLOGY

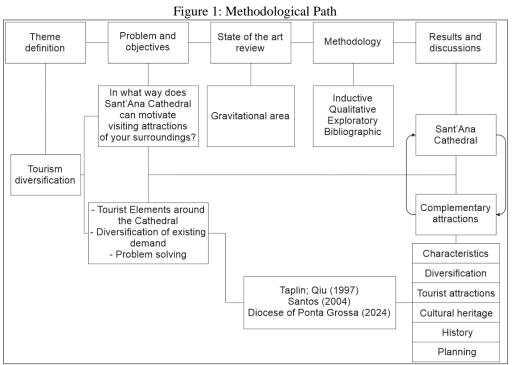
With the intent to prepare this activity, four meetings were held with the professors involved in the proposal in order to align the proposal, define the location of practical intervention, execution schedule, methods of assistance to academics, forms of evaluation and definition of general guidelines. Then, the proposal was presented to the second-year class of the Bachelors of Tourism course, with an explanation of the activity, presentation of the schedule and deadlines, date of the technical visit accompanied by professors and how to present the results achieved.

This work can be characterized through the inductive approach method, since the approach to phenomena generally moves towards increasingly comprehensive plans, going from the most particular findings to laws and theories (MARCONI; LAKATOS, 2003), highlighting that the inductive method needs verification, observation and experimentation, starting from effects to causes (ALMEIDA, 2021), concepts

that support and corroborate the proposed proposal. In turn, the intervention has a qualitative character, as the externalizations of potential visitors to the Sant'Ana Cathedral were observed, analyzed and interpreted, based on a psychosocial vision, allowing us to understand the relationship between the subjects and the real world (ALMEIDA, 2021).

As for the objectives, we understand this as an exploratory research, as we sought to progress in greater and new information and knowledge about a topic (ALMEIDA, 2021), here being the diversification of tourist demand for a given attraction. Exploratory research evaluates an unknown concrete situation, in a specific location (MARCONI; LAKATOS, 2003), the Sant'Ana Cathedral.

As for technical procedures, this composes a bibliographical research, as it is prepared using already published materials (MARCONI; LAKATOS, 2003; ALMEIDA, 2021), with the aim of improving and updating knowledge on the subject (SOUSA; OLIVEIRA; ALVES, 2021). The macro-theme of tourist attractions was searched for on the Capes Periodicals Portal and on Google Scholar, albeit in a non-systematic way. A systematic view of this process can be seen in Figure 1:



Source: Prepared by the authors, 2024.

The field trip took place on November 13th in the morning, accompanied by subject professors, a student who is also a tour guide and an employee of the Cathedral. However, this did not manifest itself at any time, only acting in opening doors and indicating paths to be followed. Students were encouraged to take notes, take photographs and ask questions about the space visited. In this way, it is considered that the

study is valid and can be considered in tourism intervention programs and projects, whether originating from the public or private initiative.

# **3 DEVELOPMENT**

## 3.1 GRAVITATIONAL AREA

Since Sir Isaac Newton made one of the most important discoveries in history, the Law of Gravity, published in his work *Philosophiae Naturalis Principia Mathematica* (NEWTON, 2008), there have been huge advancements in the development of Physics, but not only that, generating reflections in several areas of the knowledge and boosting, in a notable way, the development of Humanity.

In an extensive and prolific theoretical review, Santos (2004) presents several applications of gravity models, in which we highlight the themes that are incorporated into tourism. For example, in transportation, gravity models are used to, among other purposes, analyze and estimate the distribution of trips from sending and receiving centers (NOVAES, 1986; KHISTY; LALL, 1990; ORTÚZAR; WILLUMSEN, 1990; PAPACOSTAS; PREVENDOUROS, 1993), to explain numerous sociocultural phenomena (WOLPERT et al, apud JOHNSTON, 1986), as well as the development of markets and related matters (ISARD et al., 1960; DEARDORFF, 1995; SEN; SMITH, 1995; FRANKEL; ROMER; CYRUS, 1996; EVENETT; KELLER, 1998; FIDRMUC; FIDRMUC, 2000; WALL, 2000; ANDERSON; WINCOOP, 2001; ROSE; SPIEGEL, 2002).

It is evident that the practical application of gravitational force in Social Sciences is not the same as that represented by Newton (2008) to explain the mechanics of the universe, so this analogy is a form of metaphor. However, this model is accurate when we adapt it to tourist attractions, since these places exert a symbolic force of attracting visitors, concentrating them around a single point or area. In a simple way to illustrate this concept from a tourism perspective, we can mention an airport, which is a piece of equipment that, due to its functionality, will 'attract' people to it like a magnet. The same occurs in tourist attractions, such as the Eiffel Tower in Paris, the Atomium in Brussels or Christ the Redeemer in Rio de Janeiro.

There are several studies that use the concept of gravity models (RABAHY, 1980; TULIK, 1995, TAPLIN; QIU, 1997; PETROCCHI, 2001; GARCIA, 2002; SANTOS, 2004). They focused on different themes using the concept, which include analyzing the distance between the flow of origin and destination, use or not of second homes by visitors in tourist destinations, studies of competitiveness in tourism and, finally, the ability to attract visitors in a certain destination, which is the point that interests us most at the moment. In the study by Taplin and Qiu (1997), among the several variables, it is notable to highlight that the locations that are already configured as tourist desires, have a power of attraction approximately four times greater than the others, thus strengthening, the importance that a main attraction can generate flow to other secondary attractions.

As many elements of historical, cultural and tourist interest coexist in the surroundings of the Sant'Ana Cathedral, part of this study, but which end up being little observed and appreciated, we must consider that the main attraction can favor its secondary resources that are inserted in the local landscape, to complement the visitor experience.

# 3.2 SANT'ANA CATHEDRAL

In 1823, the location where the Sant'Ana Cathedral now stands was chosen, as it was located at the highest point in the urban area of the municipality of Ponta Grossa – PR. The construction began in 1906, which was later completed in mid-1923, entirely based on the project proposed by the Italian architect Nicolau Ferigotti, presenting an imposing appearance and dominating the top of the entire city. However, in 1979 the old Cathedral was demolished and the construction we know today began, which was only completed in 2009 and has capacity for 1200 people. Except through photos, it is not possible to see any trace of the old Cathedral.

The Cathedral occupies an area of 2,250 square meters in its internal space, it has 61.9 meters high, its construction features acrylic stained-glass windows that have a blue tone (Figure 2) that is the charm of the Cathedral, adding immateriality to the heritage that was present from the moment we entered the cathedral, we felt all the mystique aura of the place. Its basement is 3,650 square meters and houses a crypt, ossuaries, bathrooms, museum and parking. It can be considered to be located in the 'heart of the city' due to its location, being a very significant element, but also very little used, little appropriated by the local community beyond its religious use.

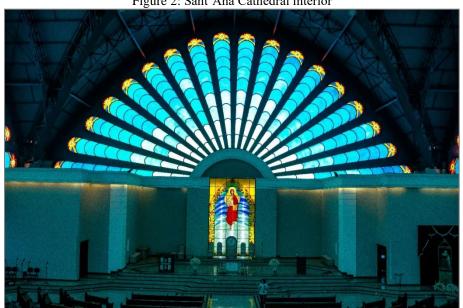


Figure 2: Sant'Ana Cathedral interior

Source: Adryan Fernando Muller personal collection (in memoriam), 2019.



The construction of the new Cathedral created a lot of controversy at the time and is still the subject of discussion, with some people considering the old one more beautiful, and others who prefer the current one because it is more modern. Based on images from the time, the old one had architectural elements that in fact beautified it more, both externally and internally, however, beauty being is something extremely relative, we consider that the old Cathedral should be preserved not only for aesthetics, but also for all the history it carried, the architecture of the time and the local identity itself. It is not possible to identify any memory of the old construction in the current one, as the objective was to build something totally different and modern (Figure 3).



Source: aRede, 2020.

From a visual perspective, we can highlight the predominant element of the building, the stainedglass windows, especially when observed during the day and inside, as during the passage of hours and the change in the angle of the sun, the colors reflected inside the cathedral also change. Perceiving not only the heritage architectural relevance as a visualization potential, but also reflecting the urban landscape of the city of Ponta Grossa, the significance of this space having housed the city's first cathedral with an architecture distinct from this, are elements capable of safeguarding the identity and the memory of local residents.

In celebration of the birthday of the city's Patron Saint, Our Lady of Sant'Ana, in July 2019, several previously restricted locations were opened for visits, for three days a week and with defined working hours. The visit was guided and lasted between 40 minutes and an hour, covering the entire church, showing the Chapel of the Blessed Sacrament, the diocesan collection, the crypt and the dome, the main point of the tour

from where you can see the city from a 360° angle after climbing 223 steps (Figure 4). In the beginning, there were groups of up to five people, over 18 years old or younger accompanied by parents or guardians.



Source: Adryan Fernando Muller personal collection (in memoriam), 2019.

In the way up to climb to the highest point of the church, the stairs differ. In the first floors they are horizontal and then they were like a 'snail' (Figure 4), which at the end had a passage to its terrace, showing a panoramic view of the city of Ponta Grossa. It is necessary to make adjustments to adapt to visits in this location, due to the height, the structure with tight spaces and the lack of facilities for the disabled. It could incapacitate certain people, such as children, people afraid of heights, the elderly due to possible fatigue and health problems, not to mention that its structure would have to be narrowed, in case someone slips or could end up in a dangerous situation.

# **4 RESULTS AND DISCUSSION**

The Cathedral has great intrinsic potential to act as a gravitational point to entice visitors to other attractions in its surroundings. Due to its location, since it is an integral part of Praça Marechal Floriano Peixoto, which, in addition to being listed, also houses three other important monuments for the city, namely: the Monument to the Bible, being the only one in the world dedicated specifically to this sacred book, the Sesquicentennial Monument which is represented by the numbers 1, 5 and 0, which sheltered a time capsule which was opened when the city celebrated its 200<sup>th</sup> anniversary, in 2023. In this monument there are representations of the elements that are part of the city's economy, from the rural aspect from the troop path to its modernization through industrialization, which means that the city has the largest number

of industries in the state of Paraná. This is a factor that justifies the main presence of tourists linked to the business tourism segment, even knowing the possibility related to tourism in natural and heritage areas. Therefore, it is extremely important that we take into account the church space as a visitation process, if it is combined with the interests of the cathedral and those who manage it. And finally, there is the Marco Zero, which is where the official reference is obtained to characterize the place where the city was founded.

The region is still surrounded by a region with many historic buildings, forming an important part of the Historic Center of Ponta Grossa. This region has a deep link with the history of the city, bringing together the Campos Gerais Museum, the Firefighter's Cup whose architecture is very similar to that of the fire battalions in the USA, with the tower and the clock which is another factor that can be to explore. From November 15<sup>th</sup> Street, one of the main examples of ancient architecture continued up to the Planalto Select Hotel, you can get a view of what Ponta Grossa was like in the 40s. This can all be used as a complement to the experience, given its relevance and architectural ensemble in harmony across several blocks.

From the highest point of the cathedral, the dome, it is possible to observe in detail the urban landscape of the city of Ponta Grossa, where we see the contradictions in architecture, some old buildings resisting time and new modern buildings being built. From above, you can see the regions of Ponta Grossa, such as Uvaranas, Oficinas, Contorno, Olarias and Jardim Carvalho, making it possible to reflect on the transformation that the city has had in recent years, with the construction of tall buildings with modern architecture and the highest standard of living in the most upscale region. In the social aspect we see differences between regions, even if they are close neighborhoods there are problems related to basic sanitation and safety.

A focal point of predominant tourist interest is seen in the dome, as by instigating visitors' curiosity about the neighborhoods and informing them of their attractions, the effect of this gravitational tourist spot is multiplied even for places relatively distant from where they are. This increases the positive effects, a basic premise of sustainability.

The square in front of the Cathedral is an important material heritage in the history of Ponta Grossa, its location at the highest point of the city, its charm with some old buildings around, even though it has undergone some changes in its architecture and with buildings being built, the square it has preserved some of its original characteristics, its essence is what draws attention. There are many people who usually sit on its benches to read newspapers.

Figure 5: View to the northeast of Ponta Grossa, from the dome of the Cathedral

Source: Adryan Fernando Muller personal collection (in memoriam), 2019.

In Figure 5 we can see the transformations in the city of Ponta Grossa, Fernandes Pinheiro Street continues with old characteristics and some buildings maintain the original architecture and around the new buildings that modified the urban landscape of Ponta Grossa, such as the central terminal and the building yellow on its front, which had been restored and maintained the original design. This central region has buildings that resist over time and add charm to the city, but which require greater care from authorities and owners. In the background we can see the São Paulo – Rio Grande Station, an important heritage in the history of Ponta Grossa, and next to it a popular shopping center, at this point in the city we see the impacts of social inequality, many drug addicts are walking around this region, which has already carried out several operations against drug dealing.



Figure 6: Another view to the northeast of Ponta Grossa, from the dome of the Cathedral

Source: Adryan Fernando Muller personal collection (in memoriam), 2019.

We can see the evolution of the city, two tall buildings with modern architecture, the environmental park that has undergone several transformations over time and today receives hundreds of people every day, to do physical exercise or meet for a walk. We note the evolution in the architecture of large buildings (Figure 6), such as the two tall buildings that stand out for their modern architecture and elegance and around some buildings that resist time such as some houses on General Carneiro Street that maintain their original facade. In the social aspect we see that on the left side of Palladium Mall there is the center of Ponta Grossa and its importance for economic development and a high standard building, on the right side we can see the neighborhoods of Princesa and Coronel Cláudio which hold a high rate of violence with people living in poverty and very humble buildings. Thus, the past and the present can be seen side by side, the Palladium Mall with its imposing construction and modern architecture and next door, overshadowed, the building that for several years used to be the Hospital 26 de Outubro, which has material and immaterial importance for Ponta Grossa, whose material heritage which is its architecture, resists over time, its original construction being preserved despite undergoing several renovations, its windows and doors remain original. In relation to intangible heritage, we can characterize the lives that were saved when the hospital was operating, the people who were born in this hospital and that later became important personalities of the city, as well as their link with the workers of the railway network, fundamental for the social and economic city development.



Figure 7: View to the northwest of Ponta Grossa, from the dome of the Cathedral

Source: Adryan Fernando Muller personal collection (in memoriam), 2019.

From Figure 7 we see the Santa Paula region, a neighborhood that has immense importance for the city, as it has independent characteristics, such as an Emergency Care Unit for urgent and emergency care, markets, gas stations, stores, lottery outlets and is immediately close to the local Events Center, greater space for holding festivities, whether in its outdoors area or in the indoors area.

Between the center of Ponta Grossa and Santa Paula (Figure 7), there are some neighborhoods in terrible structural situations such as Vila Cristina, Jardim Maracanã and part of Ronda, with unpaved streets for instance. From above we can measure and see how social inequality is part of everyday life in Ponta Grossa, some areas which mostly lay in a forgotten hole and around them large buildings begin to take shape and hide these communities.



Figure 8: View to the north of Ponta Grossa, from the dome of the Cathedral

Source: Adryan Fernando Muller personal collection (in memoriam), 2019.

The center of Ponta Grossa has ancient and modern architecture, this contrast makes the city beautiful, the height of the buildings varies according to the year of their construction, as there was a limit to the number of floors in buildings and over time this changed (Figure 8). The Regente Feijó school maintained its original architecture as well as the square that is directly in front of this school, Praça Barão do Rio Branco, a place that has an acoustic shell to host shows and a square with toys for children. In this part of the city there are many commercial buildings, the "calçadão", an important place for popular commerce as it is on the route of people going to the central terminal. Buildings are increasingly present, in some places hiding the sun. On the one hand it is good, as it generates jobs and the city develops, but on the other hand the city loses its essence, the architecture becomes standardized.

Aiming to link the religious attraction to tourist offers within its direct influence, the following exercise guide is proposed, taking into account the operating equipment and its capacity of absorbing visitors, as summarized in table 1:



Attractive	Description
Botequim Original (Original Pub)	A gastronomic attraction, the street on which it is located tends to attract the attention of those passing by, due to its shape. His choice was due to the street, its "shell" seen from the outside, its proximity to the Cathedral
Museu Campos Gerais (Campos Gerais Museum)	It would be a cultural attraction, due to its wealth in concrete form, which is shown inside the museum, in addition to its architecture seen from the outside
Museu Época (Época Museum)	Cultural attraction, due to its wealth in concrete form, which is shown inside the museum, with a cataloged and preserved historical collection, in addition to its architecture seen from the outside
PROEX (University Building)	Historic building that houses several university extension programs and on its ground floor there are always artistic exhibitions, usually focused on the visual arts

Table 1: Religious attractions and their influence

Source: Prepared by the authors, 2024.

It's important to highlight that implementing tourist signs with basic information would be of great help for those visiting the places on their own.

## **5 CONCLUSIONS**

The cathedral has its own characteristics when it comes to its architecture and has a relative sense of beauty. Its construction has an iron frame and several blue stained-glass windows and its indoors colors that add extra charm for visitors. Starting with the square where the Cathedral is located, many aspects draw attention and might bring peace of mind. The interior of the church is interesting and the shape of the building is futuristic and pleasant. In short, that's a place with interesting and significant architecture, a reference in Ponta Grossa, next to the city's ground zero.

In the scope of tourism planning, the visit served as a complement the potential use of a church structure, especially pointing out to the existence of a viewpoint where the city and its respective urban attractions can be sightseen. It allowed us the understanding that not only the potential of natural areas is significant for tourist activities, but everything else that comprises the life in urban areas.

It is noted that currently the largest flow of visitors in the city is not religious, but business tourism, thinking about this and the greater recognition of the city as a whole, with the desire to open the range of the region's tourism sector, we can think about and create an itinerary, even if at first an unofficial draft to be used by those who want to visit the cathedral, and to be used mainly if one day tourists and residents are to open up to the terrace, thus giving greater value to the church for its unique aspect, which is the climb next to the stained glass windows for a panoramic view.

We see in this way that there are ways and places that can come together to have greater visibility, this was just an assumption to show that a route with the cathedral can indeed be added, it depends on how



it will be planned and how it will be modified based on the needs that arise. Summarizing, we can see the blend of religious, gastronomic and cultural aspects together, leaving aside the mostly used rule in tourism: classification. In here we break that rule down, making possible a more flexible itinerary, but not as much to be noticed in an alarming way.



### REFERENCES

ALMEIDA, I. D. Metodologia do trabalho científico. Recife: Ed. UFPE, 2021.

ANDERSON, J. E; WINCOOP, E. V. Gravity with gravitas: a solution to the border puzzle. Cambridge: National Bureau of Economic Research, 2001. Disponível em: <a href="http://www.nber.org/papers/w8079.pdf">http://www.nber.org/papers/w8079.pdf</a>>. Acesso em: 31 jan. 2024.

AREDE. Catedral Sant'Ana retoma visitas à cúpula. Disponível em: <a href="https://www.cbnpg.com.br/post/catedral-sant-ana-retoma-visitas-%C3%A0-cupula">https://www.cbnpg.com.br/post/catedral-sant-ana-retoma-visitas-%C3%A0-cupula</a>. Acesso em: 31 jan. 2024.

DEARDORFF, A. V. Determinants of bilateral trade: does gravity work in a neoclassical world? Cambridge: National Bureau of Economic Research, 1995. Disponível em: <a href="http://www.nber.org/papers/w5377.pdf">http://www.nber.org/papers/w5377.pdf</a>>. Acesso em: 31 jan. 2024.

EVENETT, S. J; KELLER, W. On theories explaining the success of the gravity equation. Saint Louis: Washington University in St. Louis, Economics Department, 1998. Disponível em: <a href="https://econwpa.ub.uni-muenchen.de/econ-wp/it/papers/9608/9608001.pdf">https://econwpa.ub.uni-muenchen.de/econ-wp/it/papers/9608/9608001.pdf</a>>. Acesso em: 31 jan. 2024.

FIDRMUC, J; FIDRMUC, J. Integration, disintegration and trade in Europe: evolution of trade relations during the 1990s. Tilburg: Universiteit van Tilburg, Center for Economic Research, 2000. Disponível em: <a href="https://www.econstor.eu/bitstream/10419/39641/1/310109914.pdf">https://www.econstor.eu/bitstream/10419/39641/1/310109914.pdf</a>>. Acesso em: 31 jan. 2024.

FRANKEL, J. A; ROMER, D; CYRUS, T. Trade and growth in east asian countries: cause and effect? Cambridge: National Bureau of Economic Research, 1996. Disponível em: <a href="http://www.nber.org/papers/w5732.pdf">http://www.nber.org/papers/w5732.pdf</a>>. Acesso em: 31 jan. 2024.

GARCIA, E. M. Flujos Regionales del Turismo doméstico en España. Girona: Universitat de Girona, Departament d'Economia, 2002. Disponível em: <a href="https://dugi-doc.udg.edu/bitstream/handle/10256/277/n3.pdf">https://dugi-doc.udg.edu/bitstream/handle/10256/277/n3.pdf</a> Acesso em: 31 jan. 2024.

ISARD, W; et al. Methods of regional analysis: an introduction to regional science. Cambridge, USA: M.I.T., 1960.

JOHNSTON, R. J. Geografia e geógrafos: a geografia humana anglo-americana desde 1945. São Paulo: Difel, 1986.

KHISTY, C. J; LALL, K. Transportation engineering: an introduction. Upper Saddle River: Prentice-Hall, 1998.

MARCONI, M. A; LAKATOS, E. M. Fundamentos de metodologia científica. 5. ed. São Paulo: Atlas, 2003.

NEWTON, I. Philosophiae Naturalis Principia Mathematica (1822). Kessinger Publishing, 2008. 212 p. NOVAES, A. G. Sistemas de transportes. São Paulo: Edgard Blücher, 1986.

ORTÚZAR, J. D; WILLUMSEN, L. G. Modelling transport. New York: John Wiley, 1990.



PAPACOSTAS, C. S; PREVENDOUROS, P. D. Transportation engineering and planning. Englewood Cliffs: Prentice-Hall, 1993.

PARÓQUIASANT'ANACATEDRAL.Disponívelem:<http://www.diocesepontagrossa.com.br/paroquias\_info.php?id=3>.Acesso em: 30 jan. 2024.PETROCCHI, M. Gestão de pólos turísticos.São Paulo: Futura, 2001.

RABAHY, W. A. Subsídios para uma política de desenvolvimento das atividades turísticas: modelos potencial e de desempenho real. São Paulo, 1980. Dissertação (Mestrado) - Escola de Comunicações e Artes, Universidade de São Paulo.

ROSE, A. K; SPIEGEL, M. M. A gravity model of sovereign lending: trade, default and credit. San Francisco: Federal Reserve Bank of San Francisco, 2002. Disponível em: <a href="http://www.frbsf.org/publications/economics/papers/2002/wp02-09bk.pdf">http://www.frbsf.org/publications/economics/papers/2002/wp02-09bk.pdf</a>>. Acesso em: 31 jan. 2024.

SANTOS, G. E. O. Modelo gravitacional do turismo: proposta teórica e estudo empírico dos fluxos turísticos no Brasil. São Paulo, 2004. Dissertação (Mestrado) - Escola de Comunicação e Artes – Universidade de São Paulo.

SEN, A; SMITH, T. E. Gravity models of spatial interaction behavior. Berlin: Springer, 1995.

SOUSA, A. S; OLIVEIRA, G. S; ALVES, L. H. A pesquisa bibliográfica: princípios e fundamentos. Cadernos da Fucamp, v. 20, n. 43, p. 64-83.

TAPLIN, J. H. E; QIU, M. Car trip attraction and route choice in Australia. Annals of tourism research: a social sciences journal, New York, v. 24, n. 3, p. 624-637, 1997.

TULIK, O. Residências secundárias: presença, dimensão e expressividade do fenômeno no Estado de São Paulo. São Paulo, 1995. Tese (Livre-docência) – Escola de Comunicações e Artes, Universidade de São Paulo.

TURISTAS PODEM CONHECER A CATEDRAL SANT'ANA DA CÚPULA A CRIPTA. Disponível em: <a href="http://www.diocesepontagrossa.com.br/paroquias\_info.php?id=3">http://www.diocesepontagrossa.com.br/paroquias\_info.php?id=3</a>. Acesso em: 30 jan. 2024.

WALL, H. Gravity model specification and the effects of the Canada-U.S. border. Saint Louis: Federal Reserve Bank of St. Louis, 2000. Disponível em: <a href="http://research.stlouisfed.org/wp/2000/2000-024.pdf">http://research.stlouisfed.org/wp/2000/2000-024.pdf</a>>. Acesso em: 31 jan. 2024.