

Re: Expert Testimony on (i) Community Establishment; (ii) Nexus; and (iii) Support for DotMusic’s Community-Based Application¹ for .MUSIC (Application ID 1-1115-14110)

Dear ICANN and Economist Intelligence Unit (“EIU”):

Please accept this letter that indicates that there is substantive and compelling evidence that the DotMusic application convincingly meets the full criteria under Community Priority Evaluation on the following points: (i) the Music Community’s *Establishment* as defined by DotMusic; (ii) the matching *Nexus* between the “music” Community and the “music” string (or top-level domain); and (iii) that DotMusic possesses documented *Support* from organizations representing a majority of the global Music Community addressed and defined.

Please see my credentials attached hereto that identify my level of expertise and specialized knowledge with respect to the music community’s organization and delineation.

SUMMARY

DotMusic has established the following:

- 1) Its Community definition recognizes the cohesive, symbiotic and overlapping nature of the global Music Community. The definition includes those associated with commercial and non-commercial creation, performance, marketing and distribution of music;
- 2) “Music Community” members have the requisite awareness and recognition of the interdependency, overlapping and cohesive nature of each “organized community of similar nature that relates to music.” These organized and aligned communities are closely united and make “music” as we know it today. It is this self-awareness and interdependence that gives the “Music Community” its strength. With exponential growth of the Internet, mobile and the Domain Name System (DNS), the “Music Community’s” use and reliance on the Internet to create, market and disseminate music-related content, products, services and activities will continue to grow;
- 3) The “Music Community” functions in a regulated sector with global copyright protections – it is clear that the “community,” as defined, implies “more of cohesion than a mere commonality of interest” with an “awareness and recognition of a community among its members.” Several international treaties mandate a globally-recognized set of standards for

¹ <https://gtldresult.icann.org/application-result/applicationstatus/applicationdetails/1392>

the protection of the “Music Community” member rights with relation to their copyrighted music works around the world;

4) The “Music” Community -- as defined by DotMusic -- has at least one entity mainly dedicated to the community supporting DotMusic’s application. Such documented *Support* includes several “international federation of national communities of a similar nature,” music coalitions and others that are strongly associated with “music,” which represent a majority of the Community with considerable millions of members worldwide.²

5) The *Nexus* of the “music” Community matches the “music” applied-for string because it represents the entire global Music Community – a community that pre-existed 2007 with a size in the considerable millions of constituents. The “Music Community” definition -- which incorporates the strict fundamental attributes of a closely united Community definition that is “organized” and “delineated” -- ensures that all of its constituent members have a requisite awareness of the community as defined, including both commercial and non-commercial stakeholders, to register a .MUSIC domain without any conflicts of interests, over-reaching or discrimination.

6) DotMusic has received support from the largest coalition of Music Community member organizations ever assembled to support a cause. Such unparalleled global Music Community support represents an overwhelming majority of the global Music Community as defined. Cumulatively, DotMusic possesses documented support³ from institutions/organizations representing a majority of the Community as defined and recognized in the DotMusic application.

There is substantive evidence that DotMusic fulfills the *Nexus*, *Community Establishment* and *Support* criteria for the “Music” string. The inclusion and representation of every music constituent type is paramount to the articulated purpose of the string. DotMusic and its application’s global Music Community supporters substantiate that every type of music constituent contributes to the function and operation of the music sector within a regulated framework. The symbiotic nature of the Community as defined and structured means that “Music” would not function as it does today without the participation of all music constituent types that interconnect to match the “music” string with the “music” Community definition.

² <http://music.us/supporters>

³ <http://music.us/supporters>

ASSESSMENT OF COMMUNITY DEFINITION, ESTABLISHMENT AND NEXUS

A) *Music Community Definition, Establishment & Community Endorsement*⁴

DotMusic's definition of the "Music Community" as a "strictly delineated and organized community of individuals, organizations and business, a logical alliance of communities of similar nature that relate to music" (See Application Answer to Question 20a) is factually accurate and representative of the "Music Community." Community characteristics include:

i) An Organized, Cohesive, Interdependent Logically-Allied Community:

The "Music Community" definition covers the regulated, interdependent and cohesive nature of the music sector that exists today. "Music Community" members have the requisite awareness and recognition of the interdependent, overlapping and cohesive nature of each "organized community of similar nature that relates to music" that comprises the "Music Community." Without such cohesiveness and interdependency, the defined "Music" Community matching the applied-for string ("Music") would not be able to function in its regulated sector. "Music" is a regulated sector comprised of a logical alliance of interdependent communities relating to music with organized practices and institutions that enable and regulate the production, distribution and consumption of music that was publicly recognized by both ICANN and the Government Advisory Committee⁵

As a result, the Music Community as defined is "closely united" (As per the definition of "cohesion" according to Merriam-Webster dictionary⁶) or "united or form a whole" (As per the definition of the word "cohesion" according to Oxford Dictionaries⁷).

DotMusic's application follows unified principles that the entire Community subscribes to, such as: creating a trusted identifier and safe haven for music consumption, protecting musicians' rights and intellectual property, fighting copyright infringement/piracy, supporting fair compensation and music education, and following a multi-stakeholder approach of representation of all types of global music constituents without discrimination (See Application Answers to 18).

The "Music Community" as defined (a "strictly delineated and organized community of individuals, organizations and business, a logical alliance of communities of similar nature that relate to music") establishes that:

- (1) There is an awareness and recognition among its members;

⁴ See <http://music.us/establishment>

⁵ <https://www.icann.org/en/system/files/bm/briefing-materials-2-05feb14-en.pdf>, Pg.3

⁶ <http://www.merriam-webster.com/dictionary/cohesion>

⁷ http://www.oxforddictionaries.com/us/definition/american_english/cohesion

- (2) The organized and delineated logical alliance of communities exists; and
- (3) The Community is “closely united” and “interdependent” (i.e. Each “organized community of similar nature that relates to music” which is part of the “logical alliance of communities that relate to music” is not mutually exclusive).

In short, the applied-for string (“Music”) matches the name of the “Music” Community as defined by DotMusic’s application. DotMusic’s “Music Community” definition accurately represents the common definition of the “Music Community,” which is confirmed by Wikipedia.

According to Wikipedia:⁸

*Music community is defined as a logical alliance of interdependent communities that are related to music, which include commercial participants...and non-commercial participants...and consists of an “ensemble of practices and institutions that make possible and regulate the production, distribution and consumption of music”...UNESCO identifies the music community as a “community of identity” implying common identifiable characteristics and cohesive attributes such as sharing a music culture, norms and subscribing to common ideals related to music...The music community is not defined as much by demographic indicators such as race, gender, and income level, as it is by common values, cohesive norms and interconnected structures to build a community identity. It refers to music-related individuals and organisations in a shared environment with shared understandings and practices, modes of production and distribution. The shared organisation of collective musical activities, identity and community value is created as result of infrastructure and a shared set of common values...Many studies outline the historical, cultural, and spatial significance of the music community, including how its identity is formed through musical practices. The music community shares a cohesive and interconnected structure of artistic expression, with diverse subcultures and socio-economic interactions...subscribing to common ideals. Under such structured context music consumption becomes possible regardless whether the transaction is commercial and non-commercial.*⁹

⁸ Wikipedia is ranked 6th among the ten most popular websites (Alexa, Retrieved March 23, 2015 from <http://www.alexa.com/siteinfo/wikipedia.org>) and constitutes the Internet's largest, most frequently updated and popular general reference work (See OECD, OECD Internet Economy Outlook 2012, OECD Publishing, http://www.oecd-ilibrary.org/science-and-technology/oecd-internet-economy-outlook-2012_9789264086463-en, Pg.172) that compares favorably to the accuracy of other encyclopedias (such as the Britannica) according to a 2012 study conducted in partnership with Oxford University (See <http://blog.wikimedia.org/2012/08/02/seven-years-after-nature-pilot-study-compares-wikipedia-favorably-to-other-encyclopedias-in-three-languages>).

⁹ Music Community. In *Wikipedia*. Retrieved July 6, 2015, from https://en.wikipedia.org/wiki/Music_community

ii) An Aware, Pre-Existing and Recognized Community of Considerable Millions Worldwide:

DotMusic's definition of the Community covers all Community members associated with the string, each with a requisite awareness of the Community that can be validated through their natural association with a particular music-related community that they clearly identify with. According to DotMusic, all Music Community members must identify their music-related community in order to demonstrate their requisite awareness of the defined Community as part of the .MUSIC registration and validation process.

According to DotMusic, the Music Community's geographic breadth is inclusive of all recognized territories covering regions associated with ISO-3166 codes and 193 United Nations countries with a Community of considerable size with millions of constituents (Application Answer to Question 20a).

According to DotMusic, "registrants will be verified using Community-organized, unified "criteria taken from holistic perspective with due regard of Community particularities" that "invoke a formal membership (Application Answer to Question 20a)." The defined Community represents all music-related entities with a clear and straightforward membership with the Community involved in the legal production, performance, promotion, and distribution of music worldwide. According to DotMusic, the Music Community members must have an active, non-tangential relationship with the applied-for string "music" and also have the requisite awareness of the music-related community that they are a part of by specifically identifying it as part of the registration and validation process (i.e. upon successful registration and validation, each community member will be given a unique community identification number that will automatically associate them with their identified community and the "music" string).

DotMusic's Community definition matches the applied-for string because it allows both commercial and non-commercial stakeholders to register a .MUSIC domain without any conflicts of interests, over-reaching or discrimination/exclusion. Given the regulated sector of the community, it is clear that the "Music Community" as defined implies "more of cohesion than a mere commonality of interest" with an "awareness and recognition of a community among its members." Several international treaties mandate cohesive and globally-recognized set of standards for the protection of the music community members' rights with relation to their copyrighted music works around the world.¹⁰

The Berne Convention for the Protection of Literary and Artistic Works¹¹ provides that each of the 168 contracting parties¹² (representing an overwhelming majority of the world's population) provides automatic protection for music works first published in other countries of the Berne union and for unpublished music works whose authors are citizens of or resident in such other

¹⁰ http://www.rightsdirect.com/content/rd/en/toolbar/copyright_education/International_Copyright_Basics.html

¹¹ http://www.wipo.int/treaties/en/text.jsp?file_id=283698

¹² http://www.wipo.int/treaties/en/ShowResults.jsp?lang=en&treaty_id=15

countries.¹³ This means that if a Music Community member's copyright rights are violated in any other signatory country's jurisdiction, then the music community member will have the music copyright rights given by that country. Music Community members are clearly aware of the collective Community's rights, which could not be made possible without these cohesive and globally-recognized set of standards. If such standards were not coherent or enforced then music would not be able to exist in its current form and the industry component of the Music Community sector would not exist. As such, the Community's *Establishment* and definition is "cohesive" and hence cannot be construed since the Community is a logical alliance of music communities that establish a clearly delineated and organized Community structure that is "closely united" and functions as a "whole"

Further evidence to substantiate the cohesive, symbiotic and overlapping nature of the Community, includes other globally-recognized standards and classification systems, which identify who the individual songwriters, publishers and rights holders are and which songs they are associated with so that Community members are appropriately compensated, regardless of whether the constituent is a commercial, non-commercial or amateur entity. The "music" string is commonly used in classification systems such as ISMN,¹⁴ ISRC,¹⁵ ISWC,¹⁶ ISNI.¹⁷ (Application Answer to Question 20a). For example, if a music entity would like to distribute their music, either commercially or for free, then an ISRC can be assigned to globally identify any specific music work. An ISRC, which facilitates efficient music discovery and community member payment, is constructed from 12 characters representing country, registrant, year of registration and designation (i.e. the serial number assigned by the registrant). With respect to domains, an equivalent system that relates to identifying a specific domain's registrant and other relevant information pertaining to the domain is WHOIS. Domain registrants are required by ICANN "to provide accurate WHOIS contact data" or else their domain "registration may be suspended or even cancelled".¹⁸

¹³ <http://www.britannica.com/EBchecked/topic/62482/Berne-Convention>

¹⁴ The International Standard Music Number (ISMN) is a unique number for the identification of all notated music publications from all over the world. The ISMN is an ISO certified global standard number (ISO 10957:2009). See <http://www.ismn-international.org/whatis.html> and http://www.iso.org/iso/home/store/catalogue_ics/catalogue_detail_ics.htm?csnumber=43173

¹⁵ The ISRC (International Standard Recording Code) is the international identification system for sound recordings and music video recordings. The ISRC is an ISO certified global standard number (ISO 3901:2001) and is managed by the IFPI. See <http://isrc.ifpi.org>, <https://www.usisrc.org/about/index.html> and http://www.iso.org/iso/catalogue_detail?csnumber=23401

¹⁶ The ISWC (International Standard Musical Work Code) is a unique, permanent and internationally recognized reference number for the identification of musical works. The ISWC has been approved by ISO (International Organization for Standardisation) as a global standard (ISO 15707:2001) and is managed by CISAC. See <http://www.iswc.org/en/faq.html> and http://www.iso.org/iso/catalogue_detail?csnumber=28780

¹⁷ The International Standard Name Identifier (ISNI) is the ISO certified global standard number (ISO 27729) for identifying the millions of contributors to creative works and those active in their distribution. ISNI holds public records of over 8 million identities and 490,000 organizations. See <http://www.isni.org/> and http://www.iso.org/iso/catalogue_detail?csnumber=44292

¹⁸ <https://whois.icann.org/en/about-whois> and <https://www.icann.org/resources/pages/faqs-f0-2012-02-25-en>

Without such Music Community “cohesion” and standardized systems functioning in its regulated sector, the Music Community would not be able to create, market and distribute their music. By the same token, fans would not be able to identify the music they are listening to with a specific music artist, regardless of whether the listening activity or behavior is commercial or non-commercial in nature. The socio-economic structure that characterizes “music” as commonly-known today would be non-existent without these organized and delineated elements that commonly define the Community.

iii) *International Federations and Organizations mainly Dedicated to the Community:*

According to ICANN’s Applicant Guidebook (“AGB”)¹⁹: *“With respect to “Delineation” and “Extension,” it should be noted that a community can consist of...a logical alliance of communities (for example, an international federation of national communities of a similar nature... viable as such, provided the requisite awareness and recognition of the community is at hand among the members.”* (AGB, 4-12). The community as defined in the DotMusic application has at least one entity *mainly*²⁰ dedicated to the community which has supported DotMusic, which include several “international federation of national communities of a similar nature” relating to music, music coalitions and other relevant and non-negligible music organizations.

One of these entities include the only international federation of national communities relating to government culture agencies and arts councils, which has an integral association with music globally: the International Federation of Arts Councils and Culture Agencies (IFACCA).

IFACCA is the only international federation that represents government culture agencies and arts councils globally. These national communities are governmental institutions that play a pivotal

¹⁹ <https://newgtlds.icann.org/en/applicants/agb/guidebook-full-11jan12-en.pdf>

²⁰ Per the Oxford and Merriam Webster dictionaries, the word “mainly” is defined as “*more than anything else*” (See <http://www.oxforddictionaries.com/definition/english/mainly> and <http://www.merriam-webster.com/dictionary/mainly> respectively). According to DotMusic, the string .MUSIC relates to the Community “by representing all constituents involved in music creation, production and distribution” (Application Answer to Question 20d). Supporting organizations related to that string that are “mainly” dedicated to the Community and its activities, include the International Federation of Arts Councils and Culture Agencies (IFACCA) representing government culture ministries and arts councils, the International Federation of Musicians (FIM) representing musicians globally, the International Federation of Phonographic Industry (IFPI) representing the recording industry worldwide, the International Confederation of Music Publishers (ICPM) representing the voice of global music publishing, the International Association of Music Information Centres (IAMIC), the American Association of Independent Music (A2IM), whose associate members represent a majority of music consumed, the Independent Music Worldwide Independent Network (WIN) representing independent music worldwide, the International Society for Music Education (ISME) the premiere international organization representing music education, and many others (See support at <http://music.us/supporters> and <https://gtldresult.icann.org/application-result/applicationstatus/applicationdetails:downloadattachment/142588?t:ac=1392>).

role with respect to music.²¹ IFACCA's members cover the majority of music entities globally, regardless of whether they are commercial, non-commercial or amateurs. Government ministry of culture and council agencies related to music cover a majority of the overall community with respect to headcount and geographic reach. The "Size" covered reaches over a hundred million music entities i.e. "considerable size with millions of constituents" per Application Answer to Question 20a.

The string "music" falls under the jurisdiction of each country's Ministry of Culture governmental agency or arts/music council (emphasis added). The degree of power and influence of government ministry of culture and council agencies with respect to music surpasses any organization type since these agencies (i) provide the majority of funding for music-related activities; (ii) regulate copyright law; and (iii) encompass all the music entities that fall under their country, regardless whether these entities are commercial, non-commercial or amateurs. IFACCA is globally recognized by its strategic partners, such as UNESCO, a United Nations agency representing 195 member states and the European Commission.²² The UNESCO strategic partnership²³ is relevant, especially since UNESCO founded the International Music Council (the "IMC") in 1949, which represents over 200 million music constituents from over 150 countries and over 1000 organizations globally.²⁴

Government activities in the clearly delineated and organized "Music Community" include setting statutory royalty rates. For example, in the United States, mechanical royalties are based on a "statutory rate" set by the U.S. Congress. This rate is increased to follow changes in the economy, usually based on the Consumer Price Index. Currently, the mechanical statutory rate is \$0.091 for songs five minutes or less in length or \$.0175 per minute for songs that are over five minutes long.²⁵

Ministries of culture and arts councils (that comprise IFACCA's membership) support musicians, musical performances, independent music artists, non-commercial musical expression and education in their respective countries. The 165 ministries of culture, arts councils and affiliates that comprise IFACCA's membership support the "performing arts" and music specifically. Without the financial and logistical support of arts councils and the ministries of culture, the music community would be adversely affected, and in some countries, may not exist in any appreciable manner. For example, the Ministry of Culture 2011 budget for the small country state of Cyprus for culture funding was €34,876,522 with critical support of music activities.²⁶ Other small government Ministries of Culture, such as Albania,²⁷ or government

²¹ http://www.ifacca.org/membership/current_members/

²² http://www.ifacca.org/strategic_partners/

²³ http://www.ifacca.org/strategic_partners/

²⁴ <http://www.imc-cim.org/about-imc-separator/who-we-are.html>

²⁵ U.S Copyright Office, <http://www.copyright.gov/carp/m200a.html>

²⁶ 2011 Annual Report for Cyprus Ministry of Culture, Section 1.2 "Music"

(http://www.moec.gov.cy/en/annual_reports/annual_report_2011_en.pdf). Activities include Music Performances in Cyprus (1.2.1) and Abroad (1.2.2), Subsidization of Paphos Aphrodite Festival (1.2.3), Music Publications (1.2.4), Subsidization and Purchases of Digital Records (1.2.5), Promotion for Cypriot musical creativity abroad (1.2.6),

Ministries of Culture and Arts Councils from countries with larger populations, such as India,²⁸ all provide critical support and substantial advocacy for music. Other examples include government institutions collaborating and advocating music through their funded country-based pavilion initiatives at Midem, the world's largest music conference.²⁹

Government ministries and arts councils provide critical support for the Music Community, including commercial music organizations. By way of example, government ministries' and arts councils' substantial connection to and support of "music" is noted in the reports of funding and support for music. Some examples to showcase the degree of power of the IFACCA's membership towards the string and global and national music are music investment and music funding (Annual reports by governments and councils):

- New Zealand Ministry of Culture has funded significant music projects. Some include the REAL New Zealand Music Tour (\$415,000), the New Zealand String Quartet (\$150,000) and New Zealand Music Commission: (\$1,378,000).³⁰
- The Australian Government/Council For The Arts invested \$51.2 million for the nation's orchestras; \$21.6 million for opera; \$10.8 million for other music artists and organizations; \$13.1 million for multi-platform artists and organizations; and \$4 million in miscellaneous funding, including sector building and audience development initiatives and programs.³¹
- Canada Council for the Arts is Canada's national, arts funding agency investing \$28 million in its Canada Council Musical Instrument Bank (Page 16) and \$28,156,000 in Music Arts Programs (Page 66).³² The Government of Canada also renewed its annual investment of \$27.6 million over five years in the Canada Music Fund.³³
- The United Kingdom Department for Culture and Education (DfE) will fund music education at significant levels: £77 million, £65 million and £60 million will be available in the three years from April 2012.³⁴

Cyprus Symphony Orchestra Foundation (1.2.7), Music Information Centre (1.2.8), Developing Music Education (1.2.9), Organising of the 1st Musicological Symposium (1.2.10) and Musical Festivities for the European Volunteerism Year (1.2.11)

²⁷ http://www.culturalpolicies.net/down/albania_012011.pdf

²⁸ 2010-11 Annual Report from India Ministry of Culture, [http://www.indiaculture.nic.in/hindi/pdf/Culture-AnRe-2010-2011\(Eng\).pdf](http://www.indiaculture.nic.in/hindi/pdf/Culture-AnRe-2010-2011(Eng).pdf)

²⁹ <http://my.midem.com/en/contact-us/pavilion-representatives/>

³⁰ 2011 Annual Report from New Zealand Ministry of Culture:

[http://www.mch.govt.nz/files/Annual%20report%202011%202012%20pdf%20version%20\(D-0448383\).PDF](http://www.mch.govt.nz/files/Annual%20report%202011%202012%20pdf%20version%20(D-0448383).PDF)

³¹ 2011 Annual Report for the Australia Council for the Arts,

http://www.australiacouncil.gov.au/_data/assets/pdf_file/0016/142351/Australia-Council-Annual-Report-201112.pdf, Page 28

³² 2011 Annual Report for Canada Council for the Arts, [http://www.canadacouncil.ca/NR/rdonlyres/6F7549BB-F4E5-4B8B-95F4-](http://www.canadacouncil.ca/NR/rdonlyres/6F7549BB-F4E5-4B8B-95F4-1FF9FAFB9186/0/CanadaCouncilAnnualReport2012_COMPLETE.pdf)

[1FF9FAFB9186/0/CanadaCouncilAnnualReport2012_COMPLETE.pdf](http://www.canadacouncil.ca/NR/rdonlyres/6F7549BB-F4E5-4B8B-95F4-1FF9FAFB9186/0/CanadaCouncilAnnualReport2012_COMPLETE.pdf)

³³ <http://www.pch.gc.ca/eng/1294862453819/1294862453821>

³⁴ Department for Culture, The Importance of Music, A National Plan for Music Education,

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/180973/DFE-00086-2011.pdf, Page 4, 2011

- The United States National Endowment of the Arts has awarded more than \$4 billion to support the arts since its inception³⁵ and has a strong focus on music as outlined in its Strategic Plan³⁶ with Congress requested to provide \$154,465,000 for fiscal year 2014.³⁷
- The National Arts Council of South Africa invested 2,536,131 ZAR in Music and 9,995,000 ZAR in Orchestras and has focused strongly on the “Strengthening of live indigenous music and advocating the revival of the live music circuit in South Africa”³⁸
- The Singapore Arts Council will fund \$10.2 million in the arts under its 2013 Grants Framework, including the Ding Yi Music Company and Siong Leng Musical Association.³⁹
- In 2011, the support for artistic activities by the Arts Council of Finland was €32.4 million of which €4,921,850 was awarded to music.⁴⁰

Each of IFACCA’s members has a clear association with, and mandate to support the music arts in their countries. In most countries, their ministry of culture/arts council is the largest funder and marketing supporter of the music arts.

The IFPI is another entity *mainly* dedicated to the Community. The IFPI is the only organization that represents the interests of the recording industry worldwide. It is the “voice of the recording industry worldwide”⁴¹ whose members⁴² – major and independent companies -- represent a majority of all commercial music consumed globally. For example, the RIAA, an IFPI national group member,⁴³ represents “approximately 85% of all legitimate recorded music produced and sold in the United States,”⁴⁴ the world’s largest music market with 30% global market share.⁴⁵ Formed in 1933, the IFPI’s mission was to “represent the interests of the recording industry worldwide in all fora.”

³⁵ 2011 Annual report for the National Endowment of the Arts, <http://www.nea.gov/about/11Annual/2011-NEA-Annual-Report.pdf>, Page 2

³⁶ NEA Strategic Plan 2012-2016, www.arts.gov/about/Budget/NEAStrategicPlan2012-2016.pdf

³⁷ http://www.ifacca.org/national_agency_news/2013/04/10/us-president-requests-154465000-neh-2014/

³⁸ 2010-2011 Annual Report for the National Arts Council South Africa, National Arts Council South Africa, <http://www.nac.org.za/media/publications/AR%2010-11%20NAC.PDF/download>, Page 11. Also Mmino, the South African – Norwegian Education Music Programme, solely funds music projects funding a total of 294 projects. Thirteen projects were allocated funding for a total of R1,680,600 of which R1,381,000 went towards music educational and R299,600 to exchange projects (Page 10)

³⁹ Singapore Arts Council, <http://www.nac.gov.sg/media-centre/news-releases/news-detail?id=c2db15e2-c319-40ec-939c-d58735d0a91c>

⁴⁰ <http://www.taiteenkeskustoimikunta.fi/documents/10162/31704/TY+tilastotiedote+1+12+.pdf>, Page 1 and Page

23

⁴¹ <http://www.ifpi.org/about.php>

⁴² <http://www.ifpi.org/our-members.php>

⁴³ <http://www.ifpi.org/national-groups.php>

⁴⁴ <http://www.riaa.com/faq.php>

⁴⁵ <http://www.statista.com/topics/1639/music/>

Another clear example of an “entity *mainly* dedicated to the community” with members that cover hundreds of millions of music constituents with formal boundaries is A2IM, the American Association of Independent Music. A2IM has two types of members: U.S independent Label members and Associate members. A2IM membership for Labels and Associates is invoked formally through an application and if accepted would require annual membership dues.⁴⁶

The reach of A2IM Associate⁴⁷ membership covers hundreds of millions of entities (i.e. the reach of A2IM’s total membership “geographic breadth is inclusive of all recognized territories covering regions associated with ISO-3166 codes and 193 United Nations countries with a Community of considerable size with millions of constituents – See Application Answer to Question 20a).

Organized and strictly delineated communities related to music that are A2IM members include:

- **Apple iTunes**⁴⁸ – iTunes accounts for 63% of global digital music market⁴⁹ - a majority – with a registered community of 800 million registered members⁵⁰ available in 119 countries who abide to strict terms of service and boundaries⁵¹ and have downloaded over 25 billion songs⁵² from iTunes’ catalog of over 43 million songs⁵³ covering a global music community, regardless of genre or whether the community entities are amateur, professional, commercial or non-commercial. To add music to iTunes, all music artists must have a formal membership with iTunes via an Apple ID registration, which includes a current credit card on file.⁵⁴
- **Pandora**⁵⁵ – Pandora is the world’s largest streaming music radio with a community of over 250 million registered members.⁵⁶
- **Spotify**⁵⁷ – Spotify is the world’s largest music streaming community with over 50 million active registered members in 58 countries and over 30 million songs. The music community uploads 20,000 songs every day.⁵⁸
- **Vevo**⁵⁹ – Vevo is the world’s leading all-premium music video community and platform with over 8 billion monthly views globally.⁶⁰

⁴⁶ <http://a2im.org/about-joining/>

⁴⁷ <http://a2im.org/groups/tag/associate+members/>

⁴⁸ <http://a2im.org/groups/itunes>

⁴⁹ <http://appleinsider.com/articles/13/04/16/apples-itunes-rules-digital-music-market-with-63-share>

⁵⁰ <http://www.npr.org/blogs/therecord/2015/01/06/375173595/with-downloads-in-decline-can-itunes-adapt>

⁵¹ <http://www.apple.com/legal/internet-services/itunes/ww/index.html>

⁵² <http://www.apple.com/pr/library/2013/02/06iTunes-Store-Sets-New-Record-with-25-Billion-Songs-Sold.html>

⁵³ <https://www.apple.com/itunes/features/>

⁵⁴ <https://www.apple.com/itunes/working-itunes/sell-content/music-faq.html>

⁵⁵ <http://a2im.org/groups/pandora>

⁵⁶ <http://www.cnet.com/news/like-a-rolling-milestone-pandora-hits-250m-registered-users/> and <http://phx.corporate-ir.net/External.File?item=UGFyZW50SUQ9MTkxNTM1fENoaWxkSUQ9LTF8VHlwZT0z&t=1>, Pg.9

⁵⁷ <http://a2im.org/groups/spotify>

⁵⁸ <https://press.spotify.com/us/information/>

⁵⁹ <http://a2im.org/groups/vevo/>

- **Youtube**⁶¹ – Youtube is the world’s largest music video streaming community with millions of music creators -- amateur, professional, commercial or non-commercial -- and over 1 billion registered members covering all regions globally. 6 billion hours of video is watched every month on Youtube,⁶² of which 38.4% is music-related.⁶³
- **Reverbnation**⁶⁴ – Reverbnation⁶⁵ is one of the world’s largest music community and a leading music distributor with over 3.87 million musicians, venues labels and industry professionals covering every country globally. The Reverbnation community grows by over 50,000 artists, bands, labels and industry professionals monthly.
- **BMG**⁶⁶ – BMG is focused on the management of music publishing and recording rights. BMG has an international presence and represents over 2.5 million music rights globally.⁶⁷

A2IM also includes members that are associated with global government agencies which exclusively represent substantial music economies and music members, such as France (BureauExport⁶⁸), China (China Audio Video Association⁶⁹) and Germany (Initiative Musik).⁷⁰ A2IM also has Affiliate⁷¹ associations within the global music community. These include Affiliates such as MusicFirst,⁷² the Copyright Alliance,⁷³ the Worldwide Independent Network (WIN)⁷⁴ and Merlin.⁷⁵

A2IM also represents a recognized Music Coalition representing the interests of the Global Independent Music Community.⁷⁶ The A2IM Coalition includes Merlin, a global rights agency for the independent label sector, representing over 20,000 labels from 39 countries, Worldwide Independent Network (representing label creators in over 20 countries), Association of Independent Music (representing largest and most respected labels in the world), and IMPALA (Independent Music Companies Association on behalf of over 4,000 independent music companies and national associations across Europe, representing 99% of music actors in Europe which are micro, small and medium sized enterprises).

⁶⁰ <http://www.vevo.com/c/EN/US/about>

⁶¹ <http://a2im.org/groups/youtube/>

⁶² <https://www.youtube.com/yt/press/statistics.html>

⁶³ http://www.researchandmarkets.com/reports/2092499/internet_video_2011_2014_view_share_site_and

⁶⁴ <http://a2im.org/groups/reverb-nation/>

⁶⁵ <http://www.reverbnation.com/about>

⁶⁶ <http://a2im.org/groups/bmg-rights/>

⁶⁷ <http://www.bmg.com/category/about-us/history/>

⁶⁸ <http://a2im.org/groups/french-music-export-office>

⁶⁹ <http://a2im.org/groups/china-audio-video-association-cava>

⁷⁰ <http://a2im.org/groups/initiative-musik-gmbh>

⁷¹ <http://a2im.org/groups/tag/associate+members/>

⁷² <http://musicfirstcoalition.org/coalition>, The musicFIRST Coalition, with founding members A2IM, RIAA, and Recording Academy represents musicians, artists, managers, music businesses, and performance right advocates.

⁷³ <http://www.copyrightalliance.org/members>

⁷⁴ <http://www.winformusic.org>

⁷⁵ <http://www.merlinnetwork.org>

⁷⁶ <https://www.icann.org/en/system/files/correspondence/bengloff-to-chehade-et-al-20aug14-en.pdf> and <https://www.icann.org/en/system/files/correspondence/bengloff-to-crocker-et-al-07mar15-en.pdf>

Cumulatively, A2IM's Label and Associate Membership, A2IM's Affiliates and the A2IM's Global Independent Music Community Coalition, covers a majority of the global music community. Its cumulative membership is in the hundreds of millions of entities with formal boundaries belonging to strictly organized and delineated communities related to music as per the Community Definition and Size (See Application answer to Question 20a).

Another global Music Community Coalition led by the RIAA "on behalf of over 15 national and international trade associations" also expressed its support for .MUSIC to be under a "community" application model, including encouraging statements in support of DotMusic's policies that stated that the coalition "was encouraged to see" that DotMusic "included several measures to deter and address copyright infringement within that TLD." The "coalition members represent the people that write, sing, record, manufacture, distribute and/or license over 80% of the world's music"⁷⁷ – a majority of global music.⁷⁸

Another letter⁷⁹ sent to ICANN (on April 14th, 2015) by Danielle Aguirre from the NMPA and on behalf of a music publisher and songwriter community coalition representing a majority of the global music publishing community, also expressed "support [for] the .MUSIC community applications because respecting and protecting music rights serves the global music community and the public interest."

The International Music Products Association, NAMM, is another globally-recognized and relevant group of non-negligible size that has supported DotMusic.⁸⁰ NAMM, formed in 1901, is *mainly* dedicated to the global music community by representing the international music products industry and community, with globally-recognized members and exhibitors that include Yamaha, Roland, Sennheiser, Sony, Fender, Harman, Kawai, Shure, Steinway, Audio-Technica, AKAI, Gibson, Peavey, Korg, AKG, Selmer, JBL, Alesis, Ibanez, AVID, Casio, DW, Sabian, Pearl, Zildjian, Martin, Ludwig, Marshall and others.^{81 82} Every amateur and professional musician worldwide uses music products manufactured and distributed by NAMM's members. Without these musical instruments and products, music as we know it today would not be created or produced. NAMM and its trade shows power the \$17 billion global music products industry serving as a hub for the global music community wanting to seek out the newest innovations in musical products, recording technology, sound and lighting. NAMM's mission is "to strengthen

⁷⁷ <https://www.icann.org/en/system/files/correspondence/riaa-to-icann-05mar15-en.pdf>, Pg.1

⁷⁸ <https://www.icann.org/en/system/files/correspondence/riaa-to-icann-05mar15-en.pdf>, Pg.3, Appendix A

⁷⁹ <https://www.icann.org/en/system/files/correspondence/aguirre-to-icann-board-eiu-14apr15-en.pdf>

⁸⁰ http://music.us/letters/NAMM_International_Music_Products_Association.pdf

⁸¹ https://www.namm.org/files/showdir/ExhibitorList_WN15.xls

⁸² <http://www.musictrades.com/global.html>

the music products industry and promote the pleasures and benefits of making music.”⁸³ NAMM also hosts the NAMM Show, the world's largest event for the music products industry.

Collectively, the DotMusic application received support from the largest coalition of music community member organizations ever assembled to support a cause representing over 95% of music consumed globally.⁸⁴ Such unparalleled global Music Community support represents an overwhelming majority of the global Music Community as defined. Cumulatively, DotMusic possesses documented support⁸⁵ from institutions/organizations representing a majority of the Community addressed. Music -- as commonly-known by the general public and experienced today -- would not be possible without these supporting, non-negligible and relevant organizations that have endorsed DotMusic.

In conclusion, there is substantive and compelling evidence that DotMusic entirely fulfills the criteria for *Community Establishment* and *Community Endorsement* from the majority of the global Music Community as defined.

B) Nexus⁸⁶

According to the Applicant Guidebook (“AGB”), to receive the maximum score for Nexus, the applied-for string -- “music” -- must match the name of the community or be a well-known short-form or abbreviation of the community name.

The *Nexus* of the “Music Community” entirely matches the applied-for “music” string because it represents the entire global Music Community as commonly-known and perceived by the general public. This definition allows for all constituents with a requisite awareness of the Community defined to register a .MUSIC domain without any conflicts of interests, over-reaching or discrimination. The definition of the Community requires that members have an active, non-tangential relationship with the applied-for string and the requisite awareness of the music community they identify with as part of the registration process. It is clear that the general public will directly associate and equate the string with the Community as defined by DotMusic. There is no possibility of overreaching beyond the definition or allowing unrelated non-music entities to be included as part of the Community. Community members may register a .MUSIC by either:

⁸³ <https://www.namm.org/about>

⁸⁴ See <http://music.us/supporters>, <https://gtldresult.icann.org/application-result/applicationstatus/applicationdetails/downloadattachment/142588?t:ac=1392>, Bloomberg BNA at http://music.us/RIAA_Backs_DotMusic.pdf Pg.1, and <http://diffuser.fm/will-dot-music-domains-make-the-internet-better/>

⁸⁵ <http://music.us/supporters>

⁸⁶ See <http://music.us/nexus>

- 1) Identifying that they belong to a Music Community Member Organization (“MCMO”); or
- 2) Identifying the community they belong to, which is consistent with the definition of the Community: “the strictly delineated and organized logical alliance of communities of similar nature related to music.”

All Community members are aware of and recognize their inclusion in the defined Community by identifying which clearly defined community they belong to and have an active participation in. The *nexus* of the applied-for string ensures inclusion of the entire global community that the string represents while excluding unrelated-entities not associated with the string. This way there is a clear match and alignment between the “music” sting and the Community defined.

While the exact size of the global Music Community as defined is unknown (there is no empirical evidence providing an exact, finite number because amateur entities are also included in the Community’s definition), it is in the considerable millions as explicitly stated in the DotMusic Application. DotMusic’s definition of the Community and mutually-inclusive Registration Policies ensure that eligible members are only music-related and associated with the string. This is because the string identifies all constituents involved in music. Music-only participation optimizes the relevancy of .MUSIC domains to the string and entirely matches the *nexus* between the string and Community defined. According to DotMusic, the Community *definition, eligibility* criteria and *content and use* requirements ensure that peripheral industries and entities not related to music are excluded so that the string and the defined Community matches and aligns in a consistent manner consistent with DotMusic’s community-based purpose i.e. only entities with music-related activities are able to register .MUSIC domains.

Membership aligns with the *nexus* of the Community and the string, which is explicitly relevant to music. The string as defined in the application demonstrates uniqueness because it has no other significant meaning beyond identifying the community described in the application. According to DotMusic’s application, any tangential or implicit association with the *nexus* of the Community and the string is not regarded as a delineated membership since it would be considered unclear, dispersed or unbound. Such unclear, dispersed or unbound tangential relationships with the defined “music” Community and applied-for “music” string would not constitute a qualifying Community membership and would be ineligible for registration. Every type of music constituent critically contributes to the function and operation of the music sector within a regulated framework⁸⁷ given the symbiotic overlapping nature of the Community as defined and structured. Music would not function as it does today without the participation of all music constituent types which cumulatively match the string with the Community definition.

⁸⁷ ICANN has disclosed that the string .MUSIC is a sensitive string operating in a regulated sector. ICANN also accepted Government Advisory Committee (GAC) advice for safeguards to protect the Music Community and the public interest (See <https://icann.org/en/system/files/correspondence/crocker-to-dryden-3-29oct13-en.pdf> Pg.7)

In conclusion, there is substantive and compelling evidence that DotMusic entirely fulfills the criteria for *Nexus*.

Respectfully Submitted,

Jordi Bonada Sanjaume

Signature:

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Title: PhD

Organization: Music Technology Group, Universitat Pompeu Fabra

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**ACADEMIC BACKGROUND**

- 2009 **PhD in Computer Science and Digital Communication**, Universitat Pompeu Fabra. **European Doctorate**. Title: "*Voice Processing and Synthesis by Performance Sampling and Spectral Models*". Supervisor: Dr. Xavier Serra.
- 2002 **Master in Computer Science and Digital Communication**, Universitat Pompeu Fabra. Title: "*Audio Time-Scale Modification in the Context of Professional Post-Production*". Supervisor: Dr. Xavier Serra.
- 1997 **Telecommunication Engineering**, Universitat Politècnica de Catalunya. Final Engineering Project: "*Desenvolupament d'un entorn gràfic per a l'anàlisi, transformació i síntesi de sons mitjançant models espectrals*", Supervisors: Dr. Climent Nadeu, Dr., Xavier Serra.
- 1981-1997 **Music studies** in the Conservatorio Isaac Albéniz, Girona. Composition studies in Alois Haba School, Barcelona.

PROFESSIONAL EXPERIENCE

- Since 1998 Researcher and project manager in the Music Technology Group, Universitat Pompeu Fabra, Barcelona.
- Since 2011 Cofounder of Voctro Labs, S.L., Spin-Off of the Universitat Pompeu Fabra, Barcelona.
- 2010 Visiting researcher, Centre for Interdisciplinary Research on Music Media and Technology (CIRMMT), McGill University, Montreal, Canada, from May to August, under the supervision of Dr. Catherine Guastavino.
- 2003 Visiting researcher, Royal Institute of Technology (KTH), Stockholm, from June to August, funded by MOSART EU project IST-215244, under the supervision of Dr. Johan Sundberg.
- 2001 Software License Agreement of a polyphonic audio time-scaling software to the Universitat Pompeu Fabra, with the obligation to sublicense it to Yamaha Corporation.

TEACHING EXPERIENCE

- 2010-2011 Universitat Pompeu Fabra, Department of Information and Communication Technologies, Associated Professor, *Digital Speech Processing* course, Audiovisual Systems Engineering.
- 2011 Teacher of the program *Introduction to research: Estades d'Estiu de Ciència*, Science for young people (Joves i Ciència) E2C3, Caixa Catalunya.
- 2009 Positive evaluation as a PhD Professor (*Professor Lector*), Agency for the Quality of the University System in Catalonia (AQU).
- 2009 Teacher of the program *Introduction to research: Estades d'Estiu de Ciència*, Science for young people (Joves i Ciència) E2C3, Caixa Catalunya.
- 1999-2001 Universitat Pompeu Fabra, Department of Information and Communication Technologies, Associated Professor, *Audio Signal Processing* course, Computer Science Engineering.
- 1996-1998 Secondary education teacher at the *Escola de Formació Professional d'Imatge i So*, Barcelona.

PhD Thesis Supervised

- Musevic, S., September 2013. "*Non-Stationary and High-Resolution Sinusoidal Analysis*". PhD program in Information, Communication and Audiovisuals Technologies, DTIC, Universitat Pompeu Fabra, Barcelona.

PhD Thesis under Supervision

- Umbert, M., expected defense in 2015. "*Expressive Control of Singing Voice Synthesis*". PhD program in Information, Communication and Audiovisuals Technologies, DTIC, Universitat Pompeu Fabra, Barcelona.

- Coleman, G., expected defense in 2015. "Audio Transformation by Descriptors". PhD program in Information, Communication and Audiovisuals Technologies, DTIC, Universitat Pompeu Fabra, Barcelona.

Final Project and Master Thesis Supervised

- Floría, H., 2013, "*Expressive speech synthesis for a Radio DJ using Vocaloid and HMMs*", Master Thesis SMC-DTIC, Universitat Pompeu Fabra, Barcelona.
- Jewalikar, V., 2013, "*Improving automatic phonetic segmentation for creating singing voice synthesizer corpora*", Master Thesis SMC-DTIC, Universitat Pompeu Fabra, Barcelona.
- Aldana, L., 2012, "*Speaking Nature: Strategies for Generating Credible Utterances of Nature Elements or Phenomena*", Master Thesis SMC-DTIC, Universitat Pompeu Fabra, Barcelona.
- Freixes, M., 2012, "*Rapaloid: Adapting an Existing Framework for Emotional Speech Prosody Generation*", Master Thesis SMC-DTIC, Universitat Pompeu Fabra, Barcelona.
- Bucci, A., 2011, "*Digital Equalization of the Electric Violin: Method for Obtaining Acoustic Violin Body Frequency Response based on Machine Bowing*", Master Thesis SMC-DTIC, Universitat Pompeu Fabra, Barcelona.
- Roig, C., 2011, "*Vocal Riffs Library for Vocaloid 3*", Master Thesis SMC-DTIC, Universitat Pompeu Fabra, Barcelona.
- Umbert, M., 2010, "*Emotional Speech Synthesis for a Radio DJ: Corpus Design and Expression Modeling*", Master Thesis SMC-DTIC, Universitat Pompeu Fabra, Barcelona.
- Comajuncosas, J.M, 2010, "*Expressive Breath Modeling*", Master Thesis SMC-DTIC, Universitat Pompeu Fabra, Barcelona.
- Musevic, S., 2009, "*Non-Stationary Sinusoidal Analysis*", Master Thesis SMC-DTIC, Universitat Pompeu Fabra, Barcelona.
- Pantazis, V., 2009, "*Extraction and Processing of Auditory Streams as Tracks from a Stereo Mix*", Master Thesis TICMA, Universitat Pompeu Fabra, Barcelona.
- Stamatopoulos, C., 2009, "*Harmonic Audio Object Processing in Time Domain*", Master Thesis SMC-DTIC, Universitat Pompeu Fabra, Barcelona.
- Huber, S., 2009, "*Harmonic Audio Object Processing in Frequency Domain*", Master Thesis SMC-DTIC, Universitat Pompeu Fabra, Barcelona.
- Caverivière, B., "*Audio Content Retrieval Using a Query-by-Imitation System*", Master S&T - mention Informatique, École Doctorale de Mathématiques et Informatique, Bordeaux, France.
- Nieto, O., 2008, "*Voice Transformation for Extreme Vocal Effects*", Master Thesis TICMA, Universitat Pompeu Fabra, Barcelona.
- Merchán, F., 2008, "*Expressive Characterization of Flamenco Singing*", Master Thesis TICMA, Universitat Pompeu Fabra, Barcelona.
- Pretel, C., 2006, "*Diagnóstico GRBAS a partir de una señal de voz*", Final Engineering Project, Universitat Pompeu Fabra, Barcelona.
- Vinyes, M., 2005, "*Auditory Stream Separation in Commercial Music Productions: Implementation of a Real-Time Method based on Pan Location*", Final Engineering Project, Telecommunication Engineering and Mathematics, Universitat Politècnica de Catalunya, Barcelona.
- Alonso, M., 2004, "*Model d'Expressivitat Emocional per a un Sintetitzador de Veu Cantada*", Final Engineering Project, Computer Science, Universitat Pompeu Fabra, Barcelona.

Member of the following PhD Juries

- Van der Schaar, M., 2010, "*An Acoustic Bio-Metric for Sperm Whales*", PhD Thesis, Automàtica, Robòtica i Visió Program, Universitat Politècnica de Catalunya.

GRANTS AND PRIZES

- June 2013 National Commendation for Invention award given by the *Japan Institute of Invention and Innovation (JIII)* for the invention of original and natural singing voice synthesis technology disclosed in the patent No.4153220.
- Sept. 2012 *Premi del Consell social de la Universitat Pompeu Fabra a la transferència del Coneixement*. Prize awarded by the Social Council of the Universitat Pompeu Fabra to the excellent track-record in technology transfer.
- April 2011 Second prize of the VALORTEC contest on Business Initiatives organized by ACCIÓ (www.acc10.cat) to the *Voctro Labs Spin-Off Company Initiative*.
- April 2011 Prize awarded by the *Centre Internacional de Negocis de Catalunya (CINC)* to the *Voctro Labs Spin-Off Company Initiative*.

- Sept. 2010 *Premi del Consell social de la Universitat Pompeu Fabra a la transferència del Coneixement*. Prize awarded by the Social Council of the Universitat Pompeu Fabra in the category of PhD thesis with big knowledge transfer potential.
- June 2007 Rosina Ribalta Prize, by EPSON Foundation, to the best PhD Project on Information Technology and Communications. The EPSON foundation awards the quality and methodology of the projects, their social and scientific interest and the merits of the candidate.
- 5-8/2003 Research grant at Royal Institute of Technology (KTH), granted by MOSART EU Project, IST-215244.
- 1997-1998 Student grant for the project "Audio Morphing", granted by Duy SA.

FINANCED PROJECTS

DATES	TITLE AND ROLE IN THE PROJECT	FINANCING ENTITY
4/2007-3/2014	<i>Singing Voice Synthesis</i> (seven one-year projects) Researcher and team manager	Yamaha Corp, Japan
4/2010-9/2012	<i>Monet</i> Researcher and team manager	Yamaha Corp, Japan
4/2009-3/2010	<i>MinusOne</i> Researcher and team manager	Yamaha Corp, Japan
01/2008-12/2010	<i>SAME (Sound And Music For Everyone Everyday Everywhere Everyway)</i> IST-FP7-ICT-39221 Research and development	European Commission
01/2008-12/2010	<i>SALERO (Semantic Audiovisual Entertainment Reusable Objects)</i> IST-FP6-027122 Research and development	European Commission
2009-2010	<i>Vericast Optimization</i> Research and development	BMAT Licensing, Spain
1/2009-6/2009	Exposition installation: " <i>La Veu dels Neanderthals</i> " Researcher and team manager	Fundació La Caixa - CosmoCaixa, Spain
2009	<i>KaleiVoiceCope</i> voice transformation installation for the exposition " <i>Les Veus de la Mediterrània</i> " Development	Can Quintana Museu de la Mediterrània, Spain
1/2008-7/2008	<i>Skore - A Singing Voice Performance Rating System</i> Researcher and team manager	BMAT Licensing, Spain
4/2006-3/2008	<i>Violin Performer</i> Researcher and team manager	Yamaha Corp, Japan
2006-2007	<i>Playable Audio</i> Researcher	Yamaha Corp, Japan
2007	Voice transformation installation for the exposition: " <i>Números!</i> " Development and team manager	Fundació La Caixa - CosmoCaixa, Spain
2005-2006	<i>ComboVox - Voice Processing plug-in</i> Research and development	Pinnacle Systems, USA
12/2003-12/2006	<i>Semantic-HIFI</i> IST-2003-507913 Research and development	European Commission

1999-2006	<i>Daisy - A Singing Voice Synthesizer</i> (seven one-year projects) Researcher and team manager	Yamaha Corp, Japan
2003-2004	<i>(Enhanced Singing Performance Rating + Enhanced Sound Shift Operator)</i> Researcher and team manager	Yamaha Corp, Japan
2002-2004	<i>VoiceFX - A Singing Voice Processor</i> Researcher and team manager	Yamaha Corp, Japan
28/12/2000-27/12/2003	TABASCO (<i>Content based Audio Transformations</i>). TIC 2000-1904- C02 Research and development	Spanish Ministry of Science and Technology
01/11/2001-31/10/2003	Open Drama. IST-2000-28197 Research and development	European Commission
2001-2002	<i>Time Machine - High Quality Time-Scaling of Polyphonic Audio</i> Researcher and team manager	Yamaha Corp, Japan
01/02/2000-31/10/2001	RAA (<i>Recognition and Analysis of Audio</i>). IST-1999-12585 Research and development	European Commission
1997-1999	<i>Voice Morphing System for Impersonating in Karaoke</i> Researcher and team manager	Yamaha Corp, Japan

PATENTS

PRIORITY DATE AND NUMBER	INVENTORS, TITLE, PATENT NUMBER AND DESIGNATED STATES	APPLICANT
15/4/2013 JP2013000084579	Keijiro, S., Bonada, J. <i>Singing Synthesizing Database Generation Device, and Pitch Curve Generation Device</i> Patent pending JP	Yamaha Corp
10/1/2013 JP2013164584	Janer, J., Marxer, R., Bonada, J., Kazunobu, K. <i>Acoustic Processor</i> Patent pending JP	Yamaha Corp
21/6/2012 JP2012-139455 US20140006018	Bonada, J., Merlijn Blaauw, Yuji Hisaminato <i>Voice Synthesis Apparatus: Voice Quality Modification by Spectral Morphing</i> Patent pending JP, US	Yamaha Corp
7/6/2012 JP2012-129798	Bonada, J., Merlijn Blaauw, Makoto Tachibana <i>Voice Synthesis Apparatus: Phase Model</i> Patent pending JP	Yamaha Corp
18/5/2012 JP2012-115065 US20130311189	Bonada, J., Villavicencio, F. <i>Voice Synthesis Apparatus: Spectral Transformation Compensation for Probabilistic Envelope Conversion</i> Patent pending JP, US	Yamaha Corp
14/5/2012	Bonada, J., Merlijn Blaauw, Makoto Tachibana	Yamaha Corp

JP2012-110359 EP2530671	<i>Voice Synthesis Apparatus: Unit Interpolation</i> Patent pending JP, Europe	
28/10/2010	Bonada, J., Janer, J., Marxer, R., Umeyama, Y., Kondo, K., Garcia, F. <i>Technique for Estimating Particular Audio Component</i> Patent pending JP, US, AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LI, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR	Yamaha Corp
02/07/2009 JP20090157527	Keijiro, S., Bonada, J. <i>Apparatus and method for creating singing synthesizing database, and pitch curve generation apparatus and method</i> Patent pending JP, US	Yamaha Corp
02/07/2009 JP20090157531	Keijiro, S., Bonada, J. <i>Apparatus and method for creating singing synthesizing database, and pitch curve generation apparatus and method</i> Patent pending JP, US	Yamaha Corp
08/12/2008 JP20080312209	Kenmochi, H., Bonada, J. <i>Chorus Synthesizer, Chorus Synthesizing Method and Program</i> Patent pending JP	Yamaha Corp
06/02/2008 US20080026977	Janer, J., Bonada, J., de Boer, M., Loscos, A. <i>Audio Recording Analysis and Rating</i> Patent pending US	Universitat Pompeu Fabra, BMAT Licensing SL
10/10/2007 JP20070264052	Streich, S., Bonada, J., Samuel, R. <i>Elementary Piece Retrieving Device and Program</i> US7812240 JP,US	Yamaha Corp
09/10/2007 JP20070263253	Fujishima, T., de Boer, M., Bonada, J., Samuel, R., de Jong, F., Streich, S. <i>Music Piece Processing Device and Program</i> Patent pending JP	Yamaha Corp
25/09/2007 JP20070246610	Fujishima, T., de Boer, M., Bonada, J., Samuel, R., de Jong, F., Streich, S. <i>Music Piece Processing Device and Program</i> Patent pending JP	Yamaha Corp
13/09/2007 US20070900902	Bonada, J. <i>Audio Signal Transforming</i> Patent pending US	Universitat Pompeu Fabra
16/11/2007 US20070946860P US20070970109P US20070988714P	Gómez, E., Herrera, P., Cano, P., Janer, J., Serra, J., Bonada, J., El-Hajj Shadi, W., Aussenac, T., Holmbert, G. <i>Music Similarity Systems and Methods Using Descriptors</i> Patent pending US	Universitat Pompeu Fabra
30/03/2007 JP20070092185	Fujishima, T., Arimoto, K., Ong; B.S., Streich, S., Bonada, J., de Boer, M. <i>Sound Conversion Apparatus and Program</i> JP4544258 JP	Yamaha Corp
09/01/2007 JP20070001058	Fujishima, T., Bonada, J., de Boer, M. <i>Tone Processing Apparatus and Method</i> US7750228	Yamaha Corp

	JP, US, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LI, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, AL, BA, MK, RS	
19/05/2006 JP20060139911	Oshita, H., Kenmochi, H., Bonada, J., Loscos, A. <i>Voice Processor and Program</i> Patent pending JP	Yamaha Corp
27/10/2004 JP20040311637	Fujishima, T., Bonada, J. <i>Pitch Shifting Apparatus</i> US7490035 JP, US, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR	Yamaha Corp
04/03/2006 JP20060058771	Kenmochi, H., Bonada, J., Loscos, A. <i>Singing Synthesis Device and Program</i> Patent pending JP	Yamaha Corp
21/06/2006 JP20060171331	Kenmochi, H., Yoshioka, Y., Bonada, J. <i>Singing Synthesizer, Singing Synthesizing Method, and Program for Singing Synthesis</i> Patent pending JP	Yamaha Corp
09/03/2001 JP20010067258	Hisaminato, Y., Bonada, J. <i>Voice Synthesizing Apparatus</i> US7065489 JP, US, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE, TR, AL, LT, LV, MK, RO, SI	Yamaha Corp
28/12/2000 JP20000401041	Kenmochi, H., Serra, X., Bonada, J. <i>Singing Voice Synthesizing Apparatus, Singing Voice Synthesizing Method, and Program for Realizing Singing Voice Synthesizing Method</i> US7016841 JP, US, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE, TR, AL, LT, LV, MK, RO, SI	Yamaha Corp
26/05/2006 JP20060146868	Fujishima, T., Bonada, J., Loscos, A., Mayor, O. <i>Device, Method, and Program for Processing Sound Signal</i> JP4367437 JP	Yamaha Corp
30/05/2005 JP20050157758	Kenmochi, H., Bonada, J., Loscos, A. <i>Device and Program for Synthesizing Singing</i> JP4432834 JP	Yamaha Corp
26/05/2005 JP20050154738	Fujishima, T., Loscos, A., Bonada, J., Mayor, O. <i>Sound Signal Processing Apparatus, Sound Signal Processing Method and Sound Signal Processing Program</i> Patent pending JP, US, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU	Yamaha Corp
10/03/2005 JP20050067907	Kenmochi, H., Yoshioka, Y., Bonada, J. <i>Voice Processor and Program</i> Patent pending JP, US, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU	Yamaha Corp
02/02/2005 JP20050026855	Kenmochi, H., Bonada, J. <i>Voice Synthesizer and Program</i> EP1688912 JP, US, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR,	Yamaha Corp

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15/12/2005 JP20050361612	Fujishima, T., Sekine, S., Kamiya, S., Bonada, J., Fabig, L., Mayor, O., Loscos, A. <i>Device, Method, and Program for Deciding Voice Quality</i> JP4432893 JP	Yamaha Corp
21/11/2005 JP20050336272	Hisaminato, Y., Bonada, J. <i>Voice Synthesizer</i> JP4353174 JP	Yamaha Corp
09/03/2001 JP20010067257	Yoshioka, Y., Bonada, J. <i>Device, Method, and Program for Analyzing and Synthesizing Voice</i> JP3711880 JP, US, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE, TR, AL, LT, LV, MK, RO, SI	Yamaha Corp
28/04/2005 JP20050132799	Yoshioka, Y., Bonada, J. <i>Voice Analysis and Synthesizing Apparatus, Method and Program</i> JP4349316 JP	Yamaha Corp
19/11/2004 JP20040336224	Kenmochi, H., Bonada, J. <i>Aparatus for and Program of Processing Audio Signal</i> Patent pending JP, US, DE, GB	Yamaha Corp
18/10/2004 JP20040302795	Kenmochi, H., Serra, X., Bonada, J. <i>Singing Synthesizer</i> JP3985814 JP	Yamaha Corp
21/10/1999 JP19990300268	Yoshioka, Y., Serra, X., Schiementz, M., Bonada, J. <i>Device and Method for Voice Conversion and Method of Generating Dictionary for Voice Conversion</i> JP4430174 JP, US	Yamaha Corp
27/02/2002 JP20020052006	Kenmochi, H., Bonada, J., Loscos, A. <i>Singing Voice Synthesizing Method</i> US6992245 JP, US, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LI, LU, MC, NL, PT, RO, SE, SI, SK, TR, AL, LT, LV, MK	Yamaha Corp
28/02/2002 JP20020054487	Kenmochi, H., Yoshioka, Y., Bonada, J. <i>Singing Voice Synthesizing Apparatus, Singing Voice Synthesizing Method and Program for Singing Voice Synthesizing</i> US7135636 JP, US	Yamaha Corp
12/08/2002 JP20020235039	Kenmochi, H., Bonada, J. <i>Apparatus and Method for Chorus Synthesis and Program</i> JP4304934 JP	Yamaha Corp
09/08/2002 JP20020233085	Kondo, K., Bonada, J. <i>Device, Method, and Program for Time-Base Companding of Audio Signal</i> JP3858784 JP	Yamaha Corp
13/09/2001 JP20010278292	Bonada, J., Hisaminato, Y. <i>Sound Source Waveform Generator, Voice Synthesizer, Sound Source Waveform Generation Method and Program</i> JP3967571 JP	Yamaha Corp
22/12/1999	Kawashima, T., Schiementz, M., Bonada, J.	Yamaha Corp

JP19990365271	<i>Device and Method for Voice Conversion</i> JP4509273 JP	
21/10/1999 JP19990300275	Kayama, H., Serra, X., Bonada, J. <i>Device and Method for Aural Signal Processing</i> JP4455701 JP	Yamaha Corp, Universitat Pompeu Fabra
21/10/1999 JP19990300270	Kondo, T., Loscos, A., Cano, P., Bonada, J. <i>Device and Method for Adding Harmony Sound</i> Patent pending JP	Yamaha Corp, Universitat Pompeu Fabra
21/10/1999 JP19990300269	Yoshioka, Y., Bonada, J. <i>Signal Analyzer and Singal Analysis Method</i> JP4286405 JP	Yamaha Corp, Universitat Pompeu Fabra
21/10/1999 JP19990300267	Kawashima, T., Serra, X., Bonada, J. <i>Device and Method for Processing Musical Sound</i> JP3802293 JP	Yamaha Corp, Universitat Pompeu Fabra
16/06/1998 JP19980169045	Yoshioka, Y., Bonada, J. <i>Voice Transforming Device, Voice Transforming Method and Storage Medium which Records Voice Transforming Program</i> JP3706249 JP, US, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE, AL, LT, LV, MK, RO, SI	Yamaha Corp

PUBLICATIONS

PhD Dissertation

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- Umbert, M., Bonada, J., Blaauw, M., "Generating Singing Voice Expression Contours Based on Unit Selection", Stockholm Music Acoustics Conference (SMAC), pp. 315-320, Stockholm, Sweden, 2013.
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 - Mayor, O., Bonada, J., Loscos, A., "Performance Analysis and Scoring of the Singing Voice", Proceedings of the AES 35th International Conference: Audio for Games, London, 2009.
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 - Bonada, J., "Wide-Band Harmonic Sinusoidal Modeling", Proceedings of International Conference on Digital Audio Effects, Helsinki, Finland, 2008.
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 - Coleman, G., Bonada, J., "Sound Transformation by Descriptor Using an Analytic Domain", Proceedings of International Conference on Digital Audio Effects, Helsinki, Finland, 2008.
 - Gómez, E., Bonada, J., "Automatic Melodic Transcription of Flamenco Singing", Proceedings of Fourth Conference on Interdisciplinary Musicology (CIM08), Thessaloniki, Greece, 2008.
 - Guaus, E., Bonada, J., Perez, A., Maestre, E., Blaauw, M., "Measuring the bow pressing force in a real violin performance", Proceedings of International Symposium on Musical Acoustics, Barcelona, Spain, 2007.
 - Perez, A., Bonada, J., Maestre, E., Guaus, E., Blaauw, M., "Combining Performance Actions with Spectral Models for Violin Sound Transformation", Proceedings of 19th International Congress on Acoustics, Madrid, Spain, 2007.
 - Maestre, E., Bonada, J., Blaauw, M., Perez, A., Guaus, E., "Acquisition of violin instrumental gestures using a commercial EMF device", Proceedings of International Computer Music Conference, Copenhagen, Denmark, 2007
 - Bonada, J., "Esophageal Voice Enhancement by Modeling Radiated Pulses in Frequency Domain", Proceedings of 121st Convention of the Audio Engineering Society. San Francisco, CA, USA, 2006.
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 - Bonada, J., A. Loscos, and M. Blaauw. "Improvements to a Sample-Concatenation Based Singing Voice Synthesizer," Proceeding of the 121st AES Convention. San Francisco, USA, October, 2006.
 - Janer, J., J. Bonada, and M. Blaauw., "Performance-driven control for sample-based singing voice synthesis", Proceedings of 9th International Conference on Digital Audio Effects. Montreal, Canada, 2006.
 - Janer, J., J. Bonada, and S. Jordà, "Groovator - an implementation of real-time rhythm transformations", Proceedings of 121st Convention of the Audio Engineering Society. San Francisco, CA, USA, 2006.
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 - Bonada, J. "Voice Solo to Unison Choir Transformation", Proceedings of 118th Audio Engineering Society Convention. Barcelona, Spain, 2005.
 - Gómez, E., and J. Bonada, "Tonality visualization of polyphonic audio", Proceedings of the International Computer Music Conference. Barcelona, Spain, 2005.
 - Bonada, J., "High Quality Voice Transformations based on Modeling Radiated Voice Pulses in Frequency Domain", Proceedings of the 7th Int. Conference on Digital Audio Effects. Naples, Italy, October, 2004.
 - Loscos, A., and J. Bonada, "Emulating Rough And Growl Voice in Spectral Domain", Proceedings of 7th International Conference on Digital Audio Effects. Naples, Italy, October, 2004.
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- Gouyon, F., L. Fabig, and J. Bonada, "*Rhythmic expressiveness transformations of audio recordings: swing modifications*", Proceedings of 6th International Conference on Digital Audio Effects. London, UK, 2003.
- Amatriain, X., J. Bonada, A. Loscos, and X. Serra, "*Spectral Modeling for Higher-level Sound Transformation*", Proceedings of MOSART Workshop on Current Research Directions in Computer Music. Barcelona, Spain, 2001.
- Bonada, J., O. Celma, A. Loscos, J. Ortola, and X. Serra, "*Singing Voice Synthesis Combining Excitation plus Resonance and Sinusoidal plus Residual Models*", Proceedings of International Computer Music Conference. Havana, Cuba, 2001.
- Bonada, J., A. Loscos, P. Cano, X. Serra, and H. Kenmochi, "*Spectral Approach to the Modeling of the Singing Voice*", Proceedings of the 111th AES Convention. New York, USA, September, 2001.
- Bonada, J., "*Automatic Technique in Frequency Domain for Near-Lossless Time-Scale Modification of Audio*", Proceedings of the International Computer Music Conference. Berlin, Germany, 2000.
- de Boer, M., J. Bonada, P. Cano, A. Loscos, and X. Serra, "*Singing Voice Impersonator Application for PC*", Proceedings of International Computer Music Conference. Berlin, Germany, 2000.
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- Loscos, A., P. Cano, and J. Bonada, "*Low-Delay Singing Voice Alignment to Text*", Proceedings of International Computer Music Conference. Beijing, China, 1999.
- Amatriain, X., J. Bonada, and X. Serra, "*METRIX: A Musical Data Definition Language and Data Structure for a Spectral Modeling Based Synthesizer*", Proceedings of COST G6 Conference on Digital Audio Effects. Barcelona, Spain, 1998.
- Herrera, P., and J. Bonada, "*Vibrato Extraction and Parameterization in the Spectral Modeling Synthesis framework*", Proceedings of COST G6 Conference on Digital Audio Effects. Barcelona, Spain, 1998.
- Serra, X., and J. Bonada, "*Sound Transformations Based on the SMS High Level Attributes*", Proceedings of COST G6 Conference on Digital Audio Effects. Barcelona, Spain, 1998.
- Serra, X., J. Bonada, P. Herrera, and R. Loureiro, "*Integrating Complementary Spectral Models in the Design of a Musical Synthesizer*", Proceedings of International Computer Music Conference. Thessaloniki, Greece, 1997.

Invited Presentations

- Bonada, J., "*Vocaloid: A Success Story?*", 9th Pan-European Voice Conference (PEVOC9), Marseille, France, September, 2011.
- Bonada, J., "*Aplicaciones Informáticas para la música: Sistemas de recomendación musical y procesado de voz cantada*", V Jornadas Imaginática, Computer Science Engineering School, University of Seville, March, 2009.
- Bonada, J., "*Análisis y Procesado de Canto*", II Seminario de Ciencia Computacional y Flamenco, Escuela Superior de Ingenieros, Sevilla, April, 2008.
- Bonada, J., "*Singing Voice Analysis, Processing and Synthesis*", Research Seminar, La Salle, Universitat Ramon Llull, April, 2006.
- Bonada, J., Loscos, A., Jordà, S., "*Música i Tecnologia*", Cicle de Conferències del Cosmocaixa, Barcelona, December, 2004.
- Bonada, J., "*Canvi de Tempo i Síntesi de veu*", Sonology Seminar, Escola Superior de Música de Catalunya, ESMUC, April, 2005.
- Bonada, J., "*Singing Voice Synthesis*", Audio Days Seminar organized by the AES Finnish Section, Helsinki, May, 2004.
- Several seminars in different European and Asiatic institutions: AIST (*Advanced Industrial Science and Technology, Japan*), Yamaha Corporation (*Hamamatsu, Japan*), Helsinki University of Technology TTK (*Department of Electrical and Communications Engineering Laboratory of Acoustics and Audio Signal Processing, Espoo, Finland*), Tampere University of Technology (*Institute of Signal Processing, Tampere, Finland*), KTH (*Royal Institute of Technology, Stockholm, Sweden*), OFAI (*Austrian Research Institute for Artificial Intelligence, Vienna, Austria*).

OTHER RELEVANT SCIENTIFIC COLLABORATIONS

The multidisciplinary aspect of Dr. Bonada's research has been emphasized with several collaborations with researchers of different fields:

- Dr. Henkan Honing, University of Amsterdam, on rhythm perception, providing time-scale modifications of audio excerpts.
- Dr. Pascal Belin, McGill University, on gender perception, providing morph between voice recordings.
- Dr. Michel André, Universitat Politècnica de Catalunya, on the analysis of sperm whale sounds, developing algorithms and tools to assist the analysis.
- Dr. Paul Vershure and Dr. Jonatas Manzolli, Universitat Pompeu Fabra, on music therapy research, designing and providing a vowel synthesizer.
- Dr. Catherine Guastavino, McGill University, on melodic similarity perception, providing tools for melodic transcription and synthesis.

It is also worth to highlight the collaboration with the Sant Pau Hospital in Barcelona supervising a Master Thesis that focused on the GRBAS diagnosis from voice signals.

SCIENTIFIC SERVICES

- Member of the Evaluation Committee of the European Course for Musical Composition and Technologies (ECMCT), Leonardo da Vinci Programme, European Commission, October 2006 - June 2007
- Reviewer of International Journals: *IEEE Signal Processing Magazine (IEEE-SPM)*, *IEEE Transactions on Audio, Speech and Language Processing (IEEE-TASLP)*, *Computer Music Journal (CMJ)*, *Journal of Interdisciplinary Music Studies (JIMS)*
- Reviewer for Conferences in Sound and Music Computing: *International Computer Music Conference (ICMC)*, *Digital Audio Effects (DAFX)*, *Audio Engineering Society (AES)*
- Member of the program committee of the 12th *International Digital Audio Effects Conference (DAFx-2009)*
- Session chair in *MAVEBA-03 (Firenze)* and *AES-05 (Barcelona)* international conferences

DISSEMINATION IN MEDIA

Dr. Bonada's research and its application have appeared in different media along the past years (see mtg.upf.edu/news/media for more details).

- Newspaper articles on *The New York Times*, *El Periódico*, *La Vanguardia*, *El País*, *El Punt*, *El Mercantil Valenciano*, *Gaceta Universitaria*.
- TV news on US (ABC) and Spain (TVE, TVE2, TV3, Tele5, Antena 3).
- TV programs (*Redes* on TVE2, *Punt Omega* and *QueQuiCom* on TV3).
- Spanish TV show *Operación Triunfo*, a singing contest where the participants used a software tool to display in real-time relevant parameters of their performance.
- Moto GP broadcasting, where a signal analysis algorithm was used to estimate and display in real-time the engines' rpm.
- Radio interviews in *Catalunya Radio*, *Catalunya Cultura*, *Cadena Ser*, *iCat FM*.
- Magazines: *Electronic Musician*, *Producción Audio*, *Teclado Total*, *TimeOut*, *Expansión*.

It is worth to highlight the celebration and appearance on several media of the ten-year anniversary celebration of the collaboration between the Music Technology Group (MTG) of the Universitat Pompeu Fabra (UPF) and the Japanese company Yamaha Corp., with the presence of the rector of the UPF and the general director of Yamaha Corp.

MISCELLANEOUS

- Languages: Spanish, Catalan (mother tongue), fluent English
- Hobbies: music (piano player), nature, hiking, swimming
- Co-founder of the spin-off company *Barcelona Music and Audio Technologies, S.L. (BMAT)*
- Married, two sons born in 2007 and 2011
- Born on 25/03/1973

REFEREES

- Dr. Xavier Serra, Professor and head of the Music Technology Group from the Departament de Tecnologies de la Informació i les Comunicacions of the Universitat Pompeu Fabra, Barcelona, Spain, xavier.serra@upf.edu
- Dr. Udo Zölzer, Professor and head of the Department of Signal Processing and Communications at the Helmut Schmidt University - University of the Federal Armed Forces in Hamburg, Germany, udo.zoelzer@hsu-hamburg.de

- Dr. Vesa Valimaki, Professor at the Department of Signal Processing and Acoustics, in the School of Electrical Engineering of the Aalto University, Espoo, Finland, *vesa.valimaki@tkk.fi*
- Hideki Kenmochi, Corporate Research & Development Center, Yamaha Corporation, Japan, *kenmochi@beat.yamaha.co.jp*
- Dr. Johan Sundberg, emeritus Professor at the Royal Institute of Technology, Stockholm, Sweden, *jsu@csc.kth.se*
- Dr. Climent Nadeu, Professor at the Signal Processing and Communications Department of the Universitat Politècnica de Catalunya, Barcelona, Spain, *climent.nadeu@upc.edu*