

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT6449049

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
GUILLAUME FUCHS	11/13/2020
STEFAN BAYER	10/27/2020
MARKUS MALTRUS	10/25/2020
OLIVER THIERGART	10/30/2020
ALEXANDRE BOUTHÉON	11/05/2020
JUERGEN HERRE	10/26/2020
FLORIN GHIDO	11/06/2020
WOLFGANG JAEGER	11/19/2020
FABIAN KUECH	11/10/2020
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	FRAUNHOFER-GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V.
<b>Street Address:</b>	HANSASTRASSE 27C
<b>City:</b>	MUENCHEN
<b>State/Country:</b>	GERMANY
<b>Postal Code:</b>	80686
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	16943065
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(214)200-0853
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
<b>Phone:</b>	7204843719
<b>Email:</b>	ipdocketing@haynesboone.com
<b>Correspondent Name:</b>	HAYNES AND BOONE, LLP
<b>Address Line 1:</b>	2323 VICTORY AVENUE
<b>Address Line 2:</b>	SUITE 700
<b>Address Line 4:</b>	DALLAS, TEXAS 75219
<b>ATTORNEY DOCKET NUMBER:</b>	53523.58US01

<b>NAME OF SUBMITTER:</b>	MICHAEL KENNEDY
<b>SIGNATURE:</b>	/Michael Kennedy/
<b>DATE SIGNED:</b>	12/14/2020
<b>Total Attachments: 36</b> source=5352358US01-FH190106PUS_Assignments#page1.tif source=5352358US01-FH190106PUS_Assignments#page2.tif source=5352358US01-FH190106PUS_Assignments#page3.tif source=5352358US01-FH190106PUS_Assignments#page4.tif source=5352358US01-FH190106PUS_Assignments#page5.tif source=5352358US01-FH190106PUS_Assignments#page6.tif source=5352358US01-FH190106PUS_Assignments#page7.tif source=5352358US01-FH190106PUS_Assignments#page8.tif source=5352358US01-FH190106PUS_Assignments#page9.tif source=5352358US01-FH190106PUS_Assignments#page10.tif source=5352358US01-FH190106PUS_Assignments#page11.tif source=5352358US01-FH190106PUS_Assignments#page12.tif source=5352358US01-FH190106PUS_Assignments#page13.tif source=5352358US01-FH190106PUS_Assignments#page14.tif source=5352358US01-FH190106PUS_Assignments#page15.tif source=5352358US01-FH190106PUS_Assignments#page16.tif source=5352358US01-FH190106PUS_Assignments#page17.tif source=5352358US01-FH190106PUS_Assignments#page18.tif source=5352358US01-FH190106PUS_Assignments#page19.tif source=5352358US01-FH190106PUS_Assignments#page20.tif source=5352358US01-FH190106PUS_Assignments#page21.tif source=5352358US01-FH190106PUS_Assignments#page22.tif source=5352358US01-FH190106PUS_Assignments#page23.tif source=5352358US01-FH190106PUS_Assignments#page24.tif source=5352358US01-FH190106PUS_Assignments#page25.tif source=5352358US01-FH190106PUS_Assignments#page26.tif source=5352358US01-FH190106PUS_Assignments#page27.tif source=5352358US01-FH190106PUS_Assignments#page28.tif source=5352358US01-FH190106PUS_Assignments#page29.tif source=5352358US01-FH190106PUS_Assignments#page30.tif source=5352358US01-FH190106PUS_Assignments#page31.tif source=5352358US01-FH190106PUS_Assignments#page32.tif source=5352358US01-FH190106PUS_Assignments#page33.tif source=5352358US01-FH190106PUS_Assignments#page34.tif source=5352358US01-FH190106PUS_Assignments#page35.tif source=5352358US01-FH190106PUS_Assignments#page36.tif	

### ASSIGNMENT BY INVENTOR

**THIS ASSIGNMENT**, made this \_\_\_\_\_ day of \_\_\_\_\_, 2020, by Guillaume Fuchs, an individual residing at Fraunhofer-Institut Fuer Integrierte Schaltungen IIS Am Wolfsmantel 33, 91058 Erlangen, Germany, Stefan Bayer, an individual residing at Fraunhofer-Institut Fuer Integrierte Schaltungen IIS Am Wolfsmantel 33, 91058 Erlangen, Germany, Markus Multrus, an individual residing at Fraunhofer-Institut Fuer Integrierte Schaltungen IIS Am Wolfsmantel 33, 91058 Erlangen, Germany, Oliver Thiergart, an individual residing at Fraunhofer-Institut Fuer Integrierte Schaltungen IIS Am Wolfsmantel 33, 91058 Erlangen, Germany, Alexandre Bouthéon, an individual residing at Fraunhofer-Institut Fuer Integrierte Schaltungen IIS Am Wolfsmantel 33, 91058 Erlangen, Germany, Juergen Herre, an individual residing at Fraunhofer-Institut Fuer Integrierte Schaltungen IIS Am Wolfsmantel 33, 91058 Erlangen, Germany, Florin Ghido, an individual residing at Fraunhofer-Institut Fuer Integrierte Schaltungen IIS Am Wolfsmantel 33, 91058 Erlangen, Germany, Wolfgang Jaegers, an individual residing at Pfandlohe 4, 91301 Forchheim, Germany, and Fabian Kuech, an individual residing at Fraunhofer-Institut Fuer Integrierte Schaltungen IIS Am Wolfsmantel 33, 91058 Erlangen, Germany (hereinafter referred to as Assignors);

**WHEREAS**, Assignors have invented certain new and useful improvements in **Audio Scene Encoder, Audio Scene Decoder And Related Methods Using Hybrid Encoder/Decoder Spatial Analysis**, set forth in a utility patent application for Letters Patent of the United States, filed on July 30, 2020, as U.S. Application No. 16/943,065; and

**WHEREAS**, Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e.V., a company organized under and pursuant to the laws of Germany, having its principal place of business at Hansastraße 27c, München 80686 Germany (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said inventions and said Application for Letters Patent of the United States, and in and to any Letters Patent of the United States to be obtained therefore and thereon.

**NOW, THEREFORE**, in consideration of One Dollar (\$1.00) and other good and sufficient consideration, the receipt of which is hereby acknowledged, Assignors have sold, assigned, transferred and set over, and by these presents does sell, assign, transfer and set over, unto Assignee, its successors, legal representatives and assigns, the entire right, title and interest in and to the above-

mentioned inventions and application for Letters Patent, and in and to any and all related United States provisional patent applications, any and all direct and indirect divisions, continuations and continuations-in-part of said application, and any and all Letters Patent in the United States and all foreign countries which may be granted therefore and thereon, and reissues, reexaminations and extensions of said Letters Patent, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by Assignee, for its own use and benefit and the use and benefit of its successors, legal representatives and assigns, to the full end of the term or terms for which Letters Patent may be granted and/or extended, as fully and entirely as the same would have been held and enjoyed by Assignors, had this sale and assignment not been made.

**AND** for the same consideration, Assignors hereby represent and warrant to Assignee, its successors, legal representatives and assigns, that, at the time of execution and delivery of these presents, except for any rights, titles and/or interests that have arisen to Assignee under law or that have already been transferred to Assignee, Assignors are the lawful owners of the entire right, title and interest in and to the said inventions and application for Letters Patent above-mentioned, and that the same are unencumbered and that Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth.

**AND** for the same consideration, Assignors hereby covenant and agree to and with Assignee, its successors, legal representatives and assigns, that Assignors will sign all papers and documents, take all lawful oaths and do all acts necessary or required to be done for the procurement, maintenance, enforcement and defense of any Letters Patent and applications for Letters Patent for said inventions, without charge to Assignee, its successors, legal representatives and assigns, whenever counsel of Assignee, or counsel of its successors, legal representatives and assigns, shall advise; that any proceeding in connection with said inventions, or said Provisional application for Letters Patent, or any proceeding in connection with any Letters Patent or applications for Letters Patent for said inventions in any country, including but not limited to interference proceedings, is lawful and desirable; or, that any division, continuation or continuation-in-part of any application for Letters Patent, or any reissue, reexamination or extension of any Letters Patent, to be obtained thereon, is lawful and desirable.

**AND** Assignors hereby request the Commissioner for Patents and Trademarks to issue said Letters Patent of the United States to Assignee, as Assignee of said inventions and the Letters

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HS1a - 2018P61044WOUS  
Attorney Docket: 53523.58US01

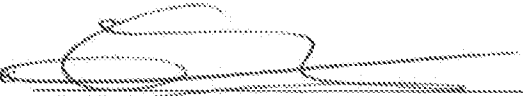
Patent to be issued thereon, for the sole use and benefit of Assignee, its successors, legal representatives and assigns.

*AND* Assignors hereby grant the following individuals the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document:

HAYNES AND BOONE, LLP

All practitioners at Customer Number 27683

AND Assignors acknowledge an obligation of assignment of this invention to Assignee at the time the invention was made.

Date: 12.11.2020 Signature:   
Guillaume Fuchs

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Stefan Bayer

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Markus Multus

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Oliver Thiergart

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Alexandre Bouthéon

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Juergen Herre

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Florin Ghido

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Wolfgang Jaegers

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Fabian Kuech

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HAYNES AND BOONE, LLP

All practitioners at Customer Number 27683

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Date: ..... Signature: .....  
Guillaume Fuchs

Date: 23.10.2020 ..... Signature:  .....  
Stefan Bayer

Date: ..... Signature: .....  
Markus Multrus

Date: ..... Signature: .....  
Oliver Thiergart

Date: ..... Signature: .....  
Alexandre Bouthéon

Date: ..... Signature: .....  
Juergen Herre

Date: ..... Signature: .....  
Florin Ghido

Date: ..... Signature: .....  
Wolfgang Jaegers

Date: ..... Signature: .....  
Fabian Kuech

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HAYNES AND BOONE, LLP

All practitioners at Customer Number 27683

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Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Guillaume Fuchs

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Stefan Bayer

Date: 15.10.2020 Signature: \_\_\_\_\_  
Markus Muller

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Oliver Thiergart

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Alexandre Bouthéon

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Juergen Herre

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Florian Ghido

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Wolfgang Jaegers

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Fabian Kuech

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HAYNES AND BOONE, LLP

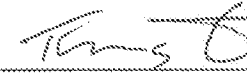
All practitioners at Customer Number 27683

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Date: ..... Signature: .....  
Guillaume Fuchs

Date: ..... Signature: .....  
Stefan Bayer

Date: ..... Signature: .....  
Markus Multrus

Date: 30. 10. 2020 Signature:   
Oliver Thiergart

Date: ..... Signature: .....  
Alexandre Bouthéon

Date: ..... Signature: .....  
Juergen Herre

Date: ..... Signature: .....  
Florio Ghido

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Wolfgang Jaegers

Date: ..... Signature: .....  
Fabian Kuech

## ASSIGNMENT BY INVENTOR

**THIS ASSIGNMENT**, made this \_\_\_\_\_ day of \_\_\_\_\_, 2020, by Guillaume Fuchs, an individual residing at Fraunhofer-Institut Fuer Integrierte Schaltungen IIS Am Wolfsmantel 33, 91058 Erlangen, Germany, Stefan Bayer, an individual residing at Fraunhofer-Institut Fuer Integrierte Schaltungen IIS Am Wolfsmantel 33, 91058 Erlangen, Germany, Markus Multras, an individual residing at Fraunhofer-Institut Fuer Integrierte Schaltungen IIS Am Wolfsmantel 33, 91058 Erlangen, Germany, Oliver Thiergart, an individual residing at Fraunhofer-Institut Fuer Integrierte Schaltungen IIS Am Wolfsmantel 33, 91058 Erlangen, Germany, Alexandre Bouthéon, an individual residing at Fraunhofer-Institut Fuer Integrierte Schaltungen IIS Am Wolfsmantel 33, 91058 Erlangen, Germany, Juergen Herre, an individual residing at Fraunhofer-Institut Fuer Integrierte Schaltungen IIS Am Wolfsmantel 33, 91058 Erlangen, Germany, Florin Ghido, an individual residing at Fraunhofer-Institut Fuer Integrierte Schaltungen IIS Am Wolfsmantel 33, 91058 Erlangen, Germany, Wolfgang Jaegers, an individual residing at Pfandlohe 4, 91301 Forchheim, Germany, and Fabian Kuech, an individual residing at Fraunhofer-Institut Fuer Integrierte Schaltungen IIS Am Wolfsmantel 33, 91058 Erlangen, Germany (hereinafter referred to as Assignors);

**WHEREAS**, Assignors have invented certain new and useful improvements in **Audio Scene Encoder, Audio Scene Decoder And Related Methods Using Hybrid Encoder/Decoder Spatial Analysis**, set forth in a utility patent application for Letters Patent of the United States, filed on July 30, 2020, as U.S. Application No. 16/943,065; and

**WHEREAS**, Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e.V., a company organized under and pursuant to the laws of Germany, having its principal place of business at Hansastraße 27c, München 80686 Germany (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said inventions and said Application for Letters Patent of the United States, and in and to any Letters Patent of the United States to be obtained therefore and thereon.

**NOW, THEREFORE**, in consideration of One Dollar (\$1.00) and other good and sufficient consideration, the receipt of which is hereby acknowledged, Assignors have sold, assigned, transferred and set over, and by these presents does sell, assign, transfer and set over, unto Assignee, its successors, legal representatives and assigns, the entire right, title and interest in and to the above-

mentioned inventions and application for Letters Patent, and in and to any and all related United States provisional patent applications, any and all direct and indirect divisions, continuations and continuations-in-part of said application, and any and all Letters Patent in the United States and all foreign countries which may be granted therefore and thereon, and reissues, reexaminations and extensions of said Letters Patent, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by Assignee, for its own use and benefit and the use and benefit of its successors, legal representatives and assigns, to the full end of the term or terms for which Letters Patent may be granted and/or extended, as fully and entirely as the same would have been held and enjoyed by Assignors, had this sale and assignment not been made.

**AND** for the same consideration, Assignors hereby represent and warrant to Assignee, its successors, legal representatives and assigns, that, at the time of execution and delivery of these presents, except for any rights, titles and/or interests that have arisen to Assignee under law or that have already been transferred to Assignee, Assignors are the lawful owners of the entire right, title and interest in and to the said inventions and application for Letters Patent above-mentioned, and that the same are unencumbered and that Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth.

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**AND** Assignors hereby request the Commissioner for Patents and Trademarks to issue said Letters Patent of the United States to Assignee, as Assignee of said inventions and the Letters

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HAYNES AND BOONE, LLP

All practitioners at Customer Number 27683


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Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Guillaume Fuchs

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Stefan Bayer

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Markus Multrus

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Oliver Thiergart

Date: 05<sup>th</sup> November 2020 Signature:   
Alexandre Bouthéon

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Juergen Herre

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Florin Ghido

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
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Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
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FH190106PUS  
IIS1a - 2018P61044WQUS  
Attorney Docket: 53523.58US01

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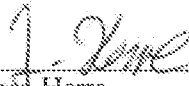
Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Guillaume Fuchs

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Stefan Bayer

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Markus Multus

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Oliver Thiergart

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Alexandre Bouthéon

Date: 26 Oct. 2020 Signature:   
Juergen Herre

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Florin Ghido

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Wolfgang Jaegers

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Fabian Kuech

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FH190106FUS  
HS1a - 2018P61044WOUS  
Attorney Docket: 53523.58US01

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Guillaume Fuchs

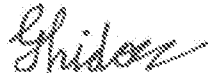
Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Stefan Bayer

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Markus Multrus

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Oliver Thiergart

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Alexandre Boutheon

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Juergen Herre

Date: 06.11.2020 Signature:   
Florin Ghido

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Wolfgang Jaegers

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Fabian Kuech

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FH199106PUS  
HS1a - 2018P61044WOUS  
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Alexandre Bouthéon

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
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Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
Florin Ghido

Date: 19.11.2020 Signature: [Signature]  
Wolfgang Jaegers

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
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Attorney Docket: 53523.58US01

Patent to be issued thereon, for the sole use and benefit of Assignee, its successors, legal representatives and assigns.

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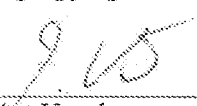
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