505878864 01/23/2020

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
FANGJUN PU	03/05/2018
TAORAN LU	03/08/2018
PENG YIN	03/08/2017
TAO CHEN	03/13/2018

RECEIVING PARTY DATA

Name:	DOLBY LABORATORIES LICENSING CORPORATION
Street Address:	1275 MARKET STREET
City:	SAN FRANCISCO
State/Country:	CALIFORNIA
Postal Code:	94103-1410

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16495812

CORRESPONDENCE DATA

Fax Number: (415)645-4000

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.

Phone: (415)558-0200 Email: patents@dolby.com

Correspondent Name: DOLBY LABORATORIES, INC.

Address Line 1: 1275 MARKET STREET

Address Line 4: SAN FRANCISCO, CALIFORNIA 94103-1410

ATTORNEY DOCKET NUMBER:	D17022US01
NAME OF SUBMITTER:	BIANCA MIYAKAWA
SIGNATURE:	/Bianca Miyakawa/
DATE SIGNED:	01/23/2020

Total Attachments: 8

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PATENT REEL: 051599 FRAME: 0571 505878864

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PATENT REEL: 051599 FRAME: 0572

WHEREAS, Fangjun Pu, a resident of Sunnyvale, California, United States of America, herein referred to as ASSIGNOR, is an inventor and owner of US Patent Application No. 62/474,372, filed March 21, 2017, entitled "Quantization Parameter Prediction Using Luminance Information".

WHEREAS, DOLBY LABORATORIES LICENSING CORPORATION, a New York corporation, having a place of business at 1275 Market Street, San Francisco, California 94103, bereinafter referred to as ASSIGNEE(S), is desirous of acquiring the entire right, title and interest in and to said application and the invention to which said application is directed, in and to any and all improvements relating to said invention, and in and to all patents thereon, when granted in the United States and all foreign countries;

NOW, THEREFORE, in consideration of good and valuable consideration received by ASSIGNOR from ASSIGNEE(S), the receipt and sufficiency of which is hereby acknowledged by ASSIGNOR:

- 1. ASSIGNOR hereby grants, sells, assigns, transfers and conveys unto ASSIGNEE(S), or to the extent ASSIGNOR has already done so, ASSIGNOR hereby confirms the grant, sale, assignment, transfer and conveyance unto ASSIGNEE(S) of the entire right, title and interest:
- (a) in and to said application, invention, and improvements thereto, and each and every additional application filed anywhere in the world, whether or not the country, jurisdiction, or authority of filing is a member of the International Union for the Protection of Industrial Property (The Paris Convention), which additional application is a division of, substitution of, continuation-in-part of, or is a counterpart of, or is in any way based on, claims priority from, or relates to, said application, invention or improvements thereto;
- (b) all priority rights associated with the filing of each and every such application, for each country of The Paris Convention, for the Patent Cooperation Treaty, for the European Patent Convention, for all other treaties of like purposes, and for Taiwan; and
- (c) in and to each and every patent on said invention or improvements thereto that may be granted by any country, jurisdiction or authority, including each and every patent that may be granted on any of the applications referred to in sub-section (a), and in and to each and every reissue, reexamination certificate, or extension of each and every such patent.
- 2. ASSIGNOR hereby warrants, covenants and represents that he/she has not heretofore granted to anyone other than ASSIGNEE(S) any license, right or privilege in respect to the said applications, patents, or said invention, nor in any other way encumbered the same, and that he/she has, or in the case of a previous assignment to ASSIGNEE(S), ASSIGNOR had the full right to convey, free of all licenses and encumbrances, the entire right, title and interest hereby assigned.
- 3. ASSIGNOR covenants and agrees that at the request and expense of ASSIGNEE(S) he/she will promptly execute all papers deemed necessary or desirable by ASSIGNEE(S) to perfect ownership of said invention, applications, and patents to ASSIGNEE(S), and execute all oaths, declarations and other papers deemed necessary or desirable by ASSIGNEE(S) for prosecuting said applications and patents, for use in interference proceedings involving said invention, applications and patents, for use in opposition

proceedings involving said invention, applications and patents, for refiling said applications, for filing of divisional, substitution, continuation or continuation-in-part applications deemed necessary or desirable by ASSIGNEE(S), for reissuance or reexamination of said patents, or for the filing in foreign countries of applications for patents counterpart to or in any way based on or relates to said application or to an application which is a division of, substitution of, continuation of, continuation-in-part of, said application or which application claims priority from or relates to said invention or improvements thereto.

ASSIGNOR further covenants and agrees that at the expense and request of ASSIGNEE(S), he/she will promptly assist ASSIGNEE(S) in interference, opposition and reexamination proceedings involving said invention, applications and patents, and in litigation involving said invention, applications and patents, and will assist in the ascertainment of facts and the production of evidence relating to said invention, applications and patents.

4. The terms, covenants and provisions of this ASSIGNMENT shall inure to the benefit of ASSIGNEE(S), its successors, assigns and other legal representatives, and shall be binding upon ASSIGNOR, his/her heirs, legal representatives and assigns.

IN TESTIMONY WHEREOF, I have executed this instrument.

3/5/2018 Date	Fangjun Pu
In the presence of:	In the presence of:
Signature of Witness (1)	Signature of Witness (2)
Taoyan Lu Print Witness's Name	QING SONG Print Witness's Name
432 Lakeside Dr. Sunnyvale. (A	432 Lake side Dr. Surnyvale CA 94084 Print Witness's Address

WHEREAS, Taoran Lu, a resident of Santa Clara, California, United States of America, herein referred to as ASSIGNOR, is an inventor and owner of US Patent Application No. 62/474,372, filed March 21, 2017, entitled "Quantization Parameter Prediction Using Luminance Information".

WHEREAS, DOLBY LABORATORIES LICENSING CORPORATION, a New York corporation, having a place of business at 1275 Market Street, San Francisco, California 94103, hereinafter referred to as ASSIGNEE(S), is desirous of acquiring the entire right, title and interest in and to said application and the invention to which said application is directed, in and to any and all improvements relating to said invention, and in and to all patents thereon, when granted in the United States and all foreign countries;

NOW, THEREFORE, in consideration of good and valuable consideration received by ASSIGNOR from ASSIGNEE(S), the receipt and sufficiency of which is hereby acknowledged by ASSIGNOR:

- 1. ASSIGNOR hereby grants, sells, assigns, transfers and conveys unto ASSIGNEE(S), or to the extent ASSIGNOR has already done so, ASSIGNOR hereby confirms the grant, sale, assignment, transfer and conveyance unto ASSIGNEE(S) of the entire right, title and interest:
- (a) in and to said application, invention, and improvements thereto, and each and every additional application filed anywhere in the world, whether or not the country, jurisdiction, or authority of filing is a member of the International Union for the Protection of Industrial Property (The Paris Convention), which additional application is a division of, substitution of, continuationin-part of, or is a counterpart of, or is in any way based on, claims priority from, or relates to, said application, invention or improvements thereto;
- (b) all priority rights associated with the filing of each and every such application, for each country of The Paris Convention, for the Patent Cooperation Treaty, for the European Patent Convention, for all other treaties of like purposes, and for Taiwan; and
- (c) in and to each and every patent on said invention or improvements thereto that may be granted by any country, jurisdiction or authority, including each and every patent that may be granted on any of the applications referred to in sub-section (a), and in and to each and every reissue, reexamination certificate, or extension of each and every such patent.
- 2. ASSIGNOR hereby warrants, covenants and represents that he/she has not heretofore granted to anyone other than ASSIGNEE(S) any license, right or privilege in respect to the said applications, patents, or said invention, nor in any other way encumbered the same, and that he/she has, or in the case of a previous assignment to ASSIGNEE(S), ASSIGNOR had the full right to convey, free of all licenses and encumbrances, the entire right, title and interest hereby assigned.
- 3. ASSIGNOR covenants and agrees that at the request and expense of ASSIGNEE(S) he/she will promptly execute all papers deemed necessary or desirable by ASSIGNEE(S) to perfect ownership of said invention, applications, and patents to ASSIGNEE(S), and execute all oaths, declarations and other papers deemed necessary or desirable by ASSIGNEE(S) for prosecuting said applications and patents, for use in interference proceedings involving said invention, applications and patents, for use in opposition

proceedings involving said invention, applications and patents, for refiling said applications, for filing of divisional, substitution, continuation or continuation-in-part applications deemed necessary or desirable by ASSIGNEE(S), for reissuance or reexamination of said patents, or for the filing in foreign countries of applications for patents counterpart to or in any way based on or relates to said application or to an application which is a division of, substitution of, continuation of, continuation-in-part of, said application or which application claims priority from or relates to said invention or improvements thereto.

ASSIGNOR further covenants and agrees that at the expense and request of ASSIGNEE(S), he/she will promptly assist ASSIGNEE(S) in interference, opposition and reexamination proceedings involving said invention, applications and patents, and in litigation involving said invention, applications and patents, and will assist in the ascertainment of facts and the production of evidence relating to said invention, applications and patents.

4. The terms, covenants and provisions of this ASSIGNMENT shall inure to the benefit of ASSIGNEE(S), its successors, assigns and other legal representatives, and shall be binding upon ASSIGNOR, his/her heirs, legal representatives and assigns.

IN TESTIMONY WHEREOF, I have executed this instrument.

3/8/2018 Date	Taoran Lu
In the presence of:	In the presence of:
Signature of Witness (1)	City Gord (2) Signature of Witness
Fanggun Pu Print Witness's Name	RING SONG Print Witness's Name
432 Lakaside Dr., Sunnyvale, CA Print Witness's Address 94085	432 Lakeside Dr. Sunnyvale, CA 94085 Print Witness's Address

WHEREAS, Peng Yin, a resident of Ithaca, New York, United States of America, herein referred to as ASSIGNOR, is an inventor and owner of US Patent Application No. 62/474,372, filed March 21, 2017, entitled "Quantization Parameter Prediction Using Luminance Information".

WHEREAS, DOLBY LABORATORIES LICENSING CORPORATION, a New York corporation, having a place of business at 1275 Market Street, San Francisco, California 94103, hereinafter referred to as ASSIGNEE(S), is desirous of acquiring the entire right, title and interest in and to said application and the invention to which said application is directed, in and to any and all improvements relating to said invention, and in and to all patents thereon, when granted in the United States and all foreign countries;

NOW, THEREFORE, in consideration of good and valuable consideration received by ASSIGNOR from ASSIGNEE(S), the receipt and sufficiency of which is hereby acknowledged by ASSIGNOR:

- 1. ASSIGNOR hereby grants, sells, assigns, transfers and conveys unto ASSIGNEE(S), or to the extent ASSIGNOR has already done so, ASSIGNOR hereby confirms the grant, sale, assignment, transfer and conveyance unto ASSIGNEE(S) of the entire right, title and interest:
- (a) in and to said application, invention, and improvements thereto, and each and every additional application filed anywhere in the world, whether or not the country, jurisdiction, or authority of filing is a member of the International Union for the Protection of Industrial Property (The Paris Convention), which additional application is a division of, substitution of, continuation of, continuationin-part of, or is a counterpart of, or is in any way based on, claims priority from, or relates to, said application, invention or improvements thereto;
- (b) all priority rights associated with the filing of each and every such application, for each country of The Paris Convention, for the Patent Cooperation Treaty, for the European Patent Convention, for all other treaties of like purposes, and for Taiwan; and
- (c) in and to each and every patent on said invention or improvements thereto that may be granted by any country, jurisdiction or authority, including each and every patent that may be granted on any of the applications referred to in sub-section (a), and in and to each and every reissue, reexamination certificate, or extension of each and every such patent.
- 2. ASSIGNOR hereby warrants, covenants and represents that he/she has not heretofore granted to anyone other than ASSIGNEE(S) any license, right or privilege in respect to the said applications, patents, or said invention, nor in any other way encumbered the same, and that he/she has, or in the case of a previous assignment to ASSIGNEE(S), ASSIGNOR had the full right to convey, free of all licenses and encumbrances, the entire right, title and interest hereby assigned.
- 3. ASSIGNOR covenants and agrees that at the request and expense of ASSIGNEE(S) he/she will promptly execute all papers deemed necessary or desirable by ASSIGNEE(S) to perfect ownership of said invention, applications, and patents to ASSIGNEE(S), and execute all oaths, declarations and other papers deemed necessary or desirable by ASSIGNEE(S) for prosecuting said applications and patents, for use in interference proceedings involving said invention, applications and patents, for use in opposition

proceedings involving said invention, applications and patents, for refiling said applications, for filing of divisional, substitution, continuation or continuation-in-part applications deemed necessary or desirable by ASSIGNEE(S), for reissuance or reexamination of said patents, or for the filing in foreign countries of applications for patents counterpart to or in any way based on or relates to said application or to an application which is a division of, substitution of, continuation of, continuation-in-part of, said application or which application claims priority from or relates to said invention or improvements thereto.

ASSIGNOR further covenants and agrees that at the expense and request of ASSIGNEE(S), be/she will promptly assist ASSIGNEE(S) in interference, opposition and reexamination proceedings involving said invention, applications and patents, and in litigation involving said invention, applications and patents, and will assist in the ascertainment of facts and the production of evidence relating to said invention, applications and patents.

4. The terms, covenants and provisions of this ASSIGNMENT shall inure to the benefit of ASSIGNEE(S), its successors, assigns and other legal representatives, and shall be binding upon ASSIGNOR, his/her heirs, legal representatives and assigns.

IN TESTIMONY WHEREOF, I have executed this instrument.

03/98/24/7	Pero G
Date	Peng Yin
In the presence of:	In the presence of:
Signature of Witness (1)	Bingridg Cast (2) Signature of Winess
Xiardony CAD	Bingxing GO
Print Witness's Name	Print Witness's Name
6 Jely street, Ithra, N/ 1900	67 Lon Street, ZHOW, N/, 14852
Print Witness's Address	Print Witness's Address

WHEREAS, Tao Chen, a resident of Palo Alto, California, United States of America, herein referred to as ASSIGNOR, is an inventor and owner of US Patent Application No. 62/474,372, filed March 21, 2017, entitled "Quantization Parameter Prediction Using Luminance Information".

WHEREAS, DOLBY LABORATORIES LICENSING CORPORATION, a New York corporation, having a place of business at 1275 Market Street, San Francisco, California 94103, hereinafter referred to as ASSIGNEE(S), is desirous of acquiring the entire right, title and interest in and to said application and the invention to which said application is directed, in and to any and all improvements relating to said invention, and in and to all patents thereon, when granted in the United States and all foreign countries;

NOW, THEREFORE, in consideration of good and valuable consideration received by ASSIGNOR from ASSIGNEE(S), the receipt and sufficiency of which is hereby acknowledged by ASSIGNOR:

- 1. ASSIGNOR hereby grants, sells, assigns, transfers and conveys unto ASSIGNEE(S), or to the extent ASSIGNOR has already done so, ASSIGNOR hereby confirms the grant, sale, assignment, transfer and conveyance unto ASSIGNEE(S) of the entire right, title and interest:
- (a) in and to said application, invention, and improvements thereto, and each and every additional application filed anywhere in the world, whether or not the country, jurisdiction, or authority of filing is a member of the International Union for the Protection of Industrial Property (The Paris Convention), which additional application is a division of, substitution of, continuationin-part of, or is a counterpart of, or is in any way based on, claims priority from, or relates to, said application, invention or improvements thereto;
- (b) all priority rights associated with the filing of each and every such application, for each country of The Paris Convention, for the Patent Cooperation Treaty, for the European Patent Convention, for all other treaties of like purposes, and for Taiwan; and
- (c) in and to each and every patent on said invention or improvements thereto that may be granted by any country, jurisdiction or authority, including each and every patent that may be granted on any of the applications referred to in sub-section (a), and in and to each and every reissue, reexamination certificate, or extension of each and every such patent.
- 2. ASSIGNOR hereby warrants, covenants and represents that he/she has not heretofore granted to anyone other than ASSIGNEE(S) any license, right or privilege in respect to the said applications, patents, or said invention, nor in any other way encumbered the same, and that he/she has, or in the case of a previous assignment to ASSIGNEE(S), ASSIGNOR had the full right to convey, free of all licenses and encumbrances, the entire right, title and interest hereby assigned.
- 3. ASSIGNOR covenants and agrees that at the request and expense of ASSIGNEE(S) he/she will promptly execute all papers deemed necessary or desirable by ASSIGNEE(S) to perfect ownership of said invention, applications, and patents to ASSIGNEE(S), and execute all oaths, declarations and other papers deemed necessary or desirable by ASSIGNEE(S) for prosecuting said applications and patents, for use in interference proceedings involving said invention, applications and patents, for use in opposition proceedings involving said invention, applications and patents, for refiling said applications, for filing of

divisional, substitution, continuation or continuation-in-part applications deemed necessary or desirable by ASSIGNEE(S), for reissuance or reexamination of said patents, or for the filing in foreign countries of applications for patents counterpart to or in any way based on or relates to said application or to an application which is a division of, substitution of, continuation of, continuation-in-part of, said application or which application claims priority from or relates to said invention or improvements thereto. ASSIGNOR further covenants and agrees that at the expense and request of ASSIGNEE(S), he/she will promptly assist ASSIGNEE(S) in interference, opposition and reexamination proceedings involving said invention, applications and patents, and in litigation involving said invention, applications and patents.

4. The terms, covenants and provisions of this ASSIGNMENT shall inure to the benefit of ASSIGNEE(S), its successors, assigns and other legal representatives, and shall be binding upon ASSIGNOR, his/her heirs, legal representatives and assigns.

IN TESTIMONY WHEREOF, I have executed this instrument.

<u> </u>	Tao Chen
In the presence of:	In the presence of:
On M La (1) Signature of Witness	Odata (2) Signature of Witness
Guan-Ming Su	(C. KONSTANTINIDES
Print Witness's Name	Print Witness's Name
432 Lakesido Dr. Sunnyale (A. 9408)	DOLBY SUNDYVALE

Print Witness's Address

Docket: D17022USP1

RECORDED: 01/23/2020

Print Witness's Address