## RECORDATION FORM COVER SHEET

#### PATENTS ONLY

To the Assistant Commissioner for Patents: Please record the attached original

Name of conveying party(ies):

Shantanu Rane Yige Wang Petros T. Boufounos Anthony Vetro

Additional name(s) of conveying party(ies) attached? [ ]Yes [X]No

3. Nature of Conveyance:

[X] Assignment

[ ]Merger

[ ]Security Agreement [ ]Change of Name

Execution Dates: November 10, 2011; February 16, 2012; November 14, 2011; and November 11, 2011

2. Name and address of receiving party(ies):

Name: Mitsubishi Electric Research Laboratories, Inc.

Street Address: 201 Broadway

City: Cambridge State: MA Zip: 02139

Additional name(s) and address(es) attached? []Yes [X]No

- 4. Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is:
  - A. Patent Application No.(s)

13/218,125

B. Patent No.(s)

Additional numbers attached? [ ]Yes [X]No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Mitsubishi Electric Research Laboratories, Inc.

Street Address: 201 Broadway

City: Cambridge State: MA Zip: 02139

- 6. Total number of applications and patents involved: [1]
  - 7.Total fee (37CFR 3.41): \$40.00
- [ ] Enclosed
- Authorized to be charged to deposit account
- Deposit account number: 50-0749

#### DO NOT USE THIS SPACE

Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Erika J. Cherko-Soykan Name of Person Signing

<u> /Erika J. Cherko-Soykan/</u>

Feb. 23, 2012

Signature Total number of pages comprising cover sheet: [1]

ASCVRLTR.FRM PLG 1/93

**PATENT REEL: 027762 FRAME: 0528** 

#### ASSIGNMENT

WHEREAS, We, LISTED INVENTORS, have made certain inventions or discoveries (or both) set forth in an Application for Utility Patent of the United States of America entitled "Method for Distributed Source Coding of Wavelet Coefficients in Zerotrees," the specification of which:

- \_\_ was executed by us on the date indicated below;
- $\frac{x}{x}$  was filed on August 25, 2011 as Application Serial No.  $\frac{13}{218}$ , 125
- \_\_ was patented under U.S. Patent No. \_\_ on \_\_;

WHEREAS, Mitsubishi Electric Research Laboratories, Inc., a corporation of the State of Delaware, whose address is 201 Broadway, Cambridge, Massachusetts 02139, and who, together with its successors and assigns is hereinafter called "Assignee", is desirous of acquiring the entire right, title, and interest together with the benefits and privileges hereinafter recited;

NOW, THEREFORE, for valuable consideration furnished by Assignee to us, receipt and sufficiency of which we hereby acknowledge, we hereby, without reservation;

- Assign, transfer and convey to Assignee the entire right, title and interest together with the benefits and privileges in and to said inventions and discoveries, said Application for Letters Patent or similar forms of protection of the United States of America, and all other applications for Letters Patent on said inventions and discoveries in whatsoever countries, including all divisional, renewal, substitute, continuation and convention applications based in whole or in part upon said inventions or discoveries, or upon said application, and any and all Letters Patent, reissues and extensions of Letters Patent or similar forms of protection granted for said inventions and discoveries or upon said applications, and every priority right that is or may be predicated upon or arise from said inventions, said discoveries, said applications and said Letters Patent:
  - 2. Authorize Assignee to file patent applications in

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any or all countries or groups of countries on any or all of said inventions and discoveries in our name or in the name of Assignee or otherwise as Assignee may deem advisable, under the International Convention or any other relevant convention or treaty or otherwise;

- 3. Authorize and request the Assistant Commissioner for Patents of the United States of America and the empowered officials of all other governments to issue or transfer all said Letters Patent to Assignee, as Assignee of the entire right, title and interest therein or otherwise as Assignee may direct;
- 4. Warrant that we have not knowingly conveyed to others any rights in said inventions, discoveries, applications or patents or any license to use the same or to make, use or sell anything embodying or utilizing any of said inventions or discoveries; and that we have good right to assign the same to Assignee without encumbrance;
- 5. Bind our heirs, legal representatives and assigns, as well as ourselves, to do, upon Assignee's request and at Assignee's expense, but without additional consideration to us or them, all acts reasonable serving to assure that said inventions and discoveries, said patent applications and said Letters Patent shall be held and enjoyed by Assignee as fully and entirely as the same could have been held and enjoyed by us, our heirs, legal representatives and assigns if this assignment had not been made; and particularly to execute and deliver to Assignee all lawful application documents including petitions, specifications, and oaths, and all assignments, disclaimers, and lawful affidavits in form and substance as may be requested by Assignee; to communicate to Assignee all facts known to us relating to said inventions and discoveries or the history thereof; and to furnish Assignee with any and all documents, photographs, models, samples and other physical exhibits in our control or in the control of our heirs, legal representatives or assigns which may be useful for establishing any facts of our conceptions, disclosures, and reduction to practice of said inventions or discoveries.

IN WITNESS WHEREOF:

**Inventor Signature** 

Shantanu Rane

Today's Date: 11/10/2011

Date Inventor Signed Declaration : August 24, 2011

County of Middlesex

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Enter Cherko-Saylar Notary Public

My Commission Expires:

September 22, 2011



IN WITNESS WHEREOF:

Inventor Signature : Clang Hige Yige Wang

Today's Date: 2/16/20/2

Date Inventor Signed Declaration : August 25, 2011

Witnessed: Jinguarg Xu
Print Witness Name

ignature of Witness Date

IN WITNESS WHEREOF:	
	1/Petros
	1 Part were

Inventor Signature : Petros T. Boufounos

Today's Date: 11/14/2011

Date Inventor Signed Declaration : August 24, 2011

County of Middlesex )ss

Subscribed and sworn to before me by the above-named Petros T. Boufounos this 14th Day of November 2011.

Enka Cherko Sylan Notary Public

My Commission Expires:

<u>September 22, 2017</u>





IN WITNESS WHEREOF:

Inventor Signature

Anthony Vetro

Today's Date:\_

Date Inventor Signed Declaration : August 24, 2011

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County of Middlesex

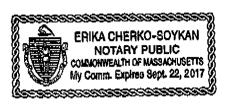
Subscribed and sworn to before me by the above-named Anthony Vetro this \_\_\_\_\_\_\_, 2011.

11#

Notary Public

My Commission Expires:

<u>September 22, 2017</u>





### Assignment

In consideration of One Dollar and other good and valuable consideration, the receipt of which is hereby acknowledged, MITSUBISHI ELECTRIC RESEARCH LABORATORIES, INC., a Delaware Corporation, having a principal place of business at 201 Broadway, Cambridge, Massachusetts 02139, hereby sells and assigns to its successors and assigns, the entire right, title and interest, including the right to claim priority under the International Convention, throughout the world, with the exception of North America, to MITSUBISHI ELECTRIC CORPORATION having a place of business at 2-3 Marunouchi 2 Chome, Chiyoda-Ku, Tokyo, Japan in and to the invention in

# Method for Distributed Source Coding of Wavelet Coefficients in Zerotrees

U.S. Patent Application Serial No. 13/218,125 Filed: August 25, 2011

File No.: MERL-2401; and the application for United States Letters Patent therefor, and such patents as may issue thereon, and all division, reissues and continuations thereof.

IN WITNESS WHEREOF, I have hereunto set my and affixed my seal.

Kent B. Wittenburg, Director, IP & Administration
Mitsubishi Electric Research Laboratorica, Inc.

Mitsubishi Electric Research Laboratories, Inc.

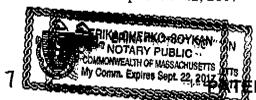
Commonwealth of Massachusetts )
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County of Middlesex

Notary Public Sylvan

My Commission Expires:

September 22, 2017



**RECORDED: 02/23/2012**