504810020 03/08/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT4856754

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
MINSIK CHO	06/30/2016
DAVID KUNG	06/22/2016
RUCHIR PURI	06/24/2016

RECEIVING PARTY DATA

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Street Address:	NEW ORCHARD ROAD	
City:	ARMONK	
State/Country:	NEW YORK	
Postal Code:	10504	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15915148

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	YOR920160832US02
NAME OF SUBMITTER:	GEOFFREY K. PECHIE
SIGNATURE:	/Geoffrey K. Pechie/
DATE SIGNED:	03/08/2018

Total Attachments: 4 source=Dec#page1.tif source=Dec#page2.tif source=Dec#page3.tif source=Dec#page4.tif

PATENT 504810020 REEL: 045142 FRAME: 0653

DECLARATION (37 C.F.R. 1.63) FOR UTILITY PATENT APPLICATION USING AN APPLICATION DATA SHEET (37 C.F.R. 1.76) AND ASSIGNMENT

SYSTEM, METHOD AND RECORDING MEDIUM FOR MIRRORING MATRICES FOR

BATCHED CHOLESKY DECOMPOSITION ON A GRAPHIC PROCESSING UNIT

As a below named inventor, I hereby declare that:		
This declaration is directed to the attached application, or (if following box is checked):		
United States application or PCT international application numberfiled on		
The above-identified application was made or authorized to be made by me.		
I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.		
have reviewed and understand the contents of the application, including the claims.		

I am aware of the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR Section 1.56.

Whereas, the undersigned inventor(s) has/have made certain inventions, improvements, and discoveries (herein referred to as the "Invention") disclosed in the above-identified patent application and further identified by the IBM Docket Number provided above in the header of this document;

Whereas, International Business Machines Corporation, a corporation of New York having a place of business at Armonk, New York (herein referred to as "IBM"), desires to acquire, and each undersigned inventor desires to grant to IBM, the entire worldwide right, title, and interest in and to the Invention and in and to any and all patent applications and patents directed thereto;

Now, therefore, for good and valuable consideration, the receipt and sufficiency thereof being hereby acknowledged, each undersigned inventor ("ASSIGNOR") hereby sells or has sold, assigns or has assigned, and otherwise transfers or has transferred to IBM (the "ASSIGNEE"), its successors, legal representatives, and assigns, the entire worldwide right, title, and interest in and to the Invention, the above-identified United States patent application, and any and all other patent applications and patents for the Invention which may be applied for or granted therefor in the United States and in all foreign countries and jurisdictions, including all divisions, continuations, reissues, reexaminations, renewals, extensions, counterparts, substitutes, and extensions thereof, and all rights of priority resulting from the filing of such applications and granting of such patents. In addition, each undersigned inventor hereby authorizes and requests the Director of the United States Patent and Trademark Office to issue any United States Patent, and foreign patent authorities to issue any foreign patent, granted for the Invention, to IBM, its successors, legal representatives, and assigns, the entire worldwide right, title, and interest in and to the same to be held and enjoyed by IBM, its successors, legal representatives, and assigns to the full end of the terms for which any and all such patents may be granted, as fully and entirely as would have been held and enjoyed by the undersigned had this Assignment not been made; and each undersigned inventor agrees to execute any and all documents and instruments and perform all lawful acts reasonably related to recording this Assignment or perfecting title to the Invention and all related patents and applications, in IBM, its successors, legal representatives, and assigns, whenever requested by IBM, its successors, legal representatives, or assigns.

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IBM DOCKET NUMBER: YOR920160832US1(YOR.1050)

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I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

(1)	Legal Name of Inventor:	Minsik Cho		
	Signature:		Date:	06/30/2016
(2)	Legal Name of Inventor:	David Shing-ki Kung		
	Signature:		Date:	·
(3)	Legal Name of Inventor:	Ruchir Puri		
	Signatura		Thatas	

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(1)) Legal Name of Inventor: Minsik Cho
	Signature:Date:
(2)	Legal Name of Inventor: David Shing-ki Kung
	Signature:
(3)	Legal Name of Inventor: Ruchir Puri
	Signature: Date:

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PATENT

REEL: 045142 FRAME: 0656

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(1)	Logar realite of inventor. Maria Can	
	Signature:	Date:
(2)	Legal Name of Inventor: David Shing-ki Kung	
	Signature:	Date:
(3)	Legal Name of Inventor: Spichic Puri	
	- Ma R-	6/24/16

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PATENT REEL: 045142 FRAME: 0657

RECORDED: 03/08/2018