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12/21/2011	DEPARTMENT OF COMMERCE

ATTORNEY DOCKET NO. 82259210	Patent and Trademark Office
RE IIII	
	103638248
Name of conveying party(ies):	2. Name and address or acciving party(ies):
Ke-Yan Liu	HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P.
Liang Tang	11445 Compaq Center Drive West
Lei Wang	Houston, TX 77070
Wei Liu	
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TRADEMARK!	
	,
Additional name(s) of conveying party(ies) attached?	□No Additional name(s) and address(es) attached? □Yes ☒No
3. Nature of Conveyance:	
■ Assignment	ange of Name Security Agreement Joint
Other	
Execution Date(s):11/8/2011; 11/9/2011; 11/8/2011; 11/	/9/2011 respectively
4. Application number(s) or patent number(s):	
If this document is being filed together with a new app	plication, execution date of the application is:
A. Patent Application No.(s)	
Application No.: 13/258476 Date	Filed: Sep 24, 2009
Confirmation No.: B. Pa	tent No.(s):
Additional numbers attached? <u>NO</u>	
Name and address of party to whom correspondence	6. Total number of applications and patents involved: 1
concerning document should be mailed:	7. Total Fee (37 CFR 3.41):\$40.00
Records Manager	, , ,
Intellectual Property Administration	Enclosed
HEWLETT-PACKARD COMPANY 3404 E. Harmony Road	X Authorization to be charged to deposit account.
Mail Stop 35 Fort Collins, Colorado 80528	8. Deposit Account Number: <u>08-2025</u>
9. Statement and signature.	
To the best of my knowledge and belief, the foregoing copy of the original document.	g information is true and correct and any attached copy is a true
A LL	- C.
Debbie Syrmis DDU	November 10, 2011
Name of Person Signing	Signature Date
l otal number of pages including cove	ersheet, attachments, and documents: 6
	sheet) should be faxed to (571) 273-0140, or mailed to:
mail Stop Assignment Recordation Services, Direct	tor of the USPTO, P.O. 60x 1450; Alexandria V.A. 22313-1450
	Page 1 of 1

Rev 09/11 (RecdAsgn)

HEWLETT-PACKARD COMPANY Intellectual Property Administrator 3404 E. Harmony Road Mail Stop 35 Fort Collins, Colorado 80528 PATENT APPLICATION

ASSIGNMENT OF PATENT APPLICATION

I/We, the undersigned (each) have agreed and hereby agree to assign to HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P., a Texas Limited Pertnership having its principal place of business in Houston, Texas, (hereinafter HPDC), in furtherance of my/our obligations to the Hewlett-Packard Company and its subsidiaries and affiliates, and do hereby assign and transfer to HPDC, its successors and assigns, the entire right, title and interest, including the right of priority, in, to and under an application for Letters Patent of the United States entitled:

Particle Tracking Methods

Filing Date: September 22, 2011	Application No.: 13/258476
and the invention(s) and improvement(s) set forth	therein, and any and all continuations, continuations-in-part (C-I
P's), divisionals, and renewals of and substitutes for	or said application for said Letters Patent, and any and all Letter
Patent of the United States and of countries forei	gn thereto which may be granted thereon or therefore; and an
reissues, or reexaminations, or extensions of said L	

I/we additionally authorize HPDC to file applications in my/our name for Letters Patent in any country, to be held and enjoyed by HPDC, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters Patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by me/us had this assignment, and transfer not been made;

AND I/we hereby covenant that I/we have full right to convey the entire interest herein assigned, and that I/we have not executed and will not execute any agreement in conflict herewith, and I/we further covenant and agree that I/we will, each time a request is made, and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said invention(s) or improvement(s), said application and said Letters Patent, to HPDC, its successors, assigns, nominees or legal representatives, and I/we agree to communicate to HPDC, or to its nominee, all known facts respecting said invention(s) or improvement(s), said application and said Letters Patent, to testify in any legal proceedings, to sign all lawful papers, to execute all disclaimers and divisionals, continuations, C-I-P's, reissue and foreign applications, to make all rightful oaths and declarations, and generally to do everything possible to aid HPDC, its successors, assigns, nominees and legal representatives to obtain and enforce, for its or their own benefit, proper patent protection for said invention(s) or Improvement(s) in any and all countries provided the expenses which may be incurred by me/us in lending such cooperation and assistance are paid by HPDC;

AND I/we hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty it is to issue patents on applications as aforesaid, to issue to HPDC, as assignee of the entire right, title and Interest, any and all Letters Patent for said invention(s) or improvement(s), including any and all Letters Patent of the United States which may be issued and granted on or as a result of the application aforesaid, in accordance with the terms of this assignment.

I/we further authorize and direct the altorneys of record to insert the serial number and filing date of said application now identified by the Record ID and title set forth above as soon as the same shall have been made known to them by the United States Patent and Trademark Office.

keyan liu	2011-11-8	
Inventor's Signature	Date Assignment Signed	
Ke-Yan Liu	2011-11-8	
Inventor's Typed Name	Date Application Signed	
Inventor's Signature	Date Assignment Signed	
Liang Tang		
Inventor's Typed Name	Date Application Signed	

Page 1 of 2

Rev 09/11 (Assignment)

HEWLETT-PACKARD COMPANY Intellectual Property Administrator, 3404 E. Harmony Road Mail Stop 35

PATENT APPLICATION

Mail Stop 35 Fort Collins, Colorado 80528	RECORD ID:	82259210
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Les wand	Date Assignment	/ NO /
Lei Wang Inventor's Typed Name	8 11 Date Application	
Inventor's Signature	Date Assignme	ent Signed
Wei Liu		
Inventor's Typed Name	Date Application	n Signed
Inventor's Signature	Date Assignme	nt Signed
inventor's Typed Name	Date Application	n Signed
Inventor's Signature	Date Assignme	int Signed
Inventor's Typed Name	Date Application	n Signed
Inventor's Signature	Date Assignme	nt Signed
Inventor's Typed Name	Date Applicatio	n Signed.
nventor's Signature	Date Assignme.	nt Signed
nventor's Typed Name	Date Application	n Şigned

Rev 69/11 (Assignment)

Page 2 of 2

HEWLETT-PACKARD COMPANY Intellectual Property Administrator 3404 E. Harmony Road Mail Stop 35 Fort Collins, Colorado 80528

PATENT APPLICATION

RECORD ID

82259210

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Particle Tracking Methods

Filing Date: September 22, 2011

Application No.: 13/258476

and the invention(s) and improvement(s) set forth therein, and any and all continuations, continuations-in-part (C-I-P's), divisionals, and renewals of and substitutes for said application for said Letters Patent, and any and all Letters Patent of the United States and of countries foreign thereto which may be granted thereon or therefore; and any reissues, or reexaminations, or extensions of said Letters Patent.

I/we additionally authorize HPDC to file applications in my/our name for Letters Patent in any country, to be held and enjoyed by HPDC, its successors, assigns, nominees or legal representatives, to line full end of the term or terms for which said Letters Patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by me/us had this assignment, and transfer not been made;

AND live hereby coverant that live have full right to convey the entire interest herein assigned, and that if we have not executed and will not execute any agreement in conflict herewith, and live further coverant and agree that live will, each time a request is made, and without undue delay, execute and deliver all such papers as may be necessary or destrable to perfect the title to said invention(s) or improvement(s), said application and said Letters Patent, to HPDC, its successors, assigns, nominees or legal representatives, and live agree to communicate to HPDC or to its nominee, all known facts respecting said invention(s) or improvement(s), said application and said Letters Patent, to testify in any legal proceedings, to sign all tayful papers, to execute all disclaimers and divisionals continuations. C IPPs, reissue and foreign applications, to make all rightful oaths and declarations, and generally to do everything possible to aid HPDC, its successors, assigns, nominees and legal representatives to obtain and enforce, for its or their own benefit, proper patent protection for said invention(s) or improvement(s) in any and all countries provided (the expenses which may be incurred by me/us in lending such cooperation and assistance are paid by HPDC.

AND tiwe hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty it is to issue patents on applications as aforesald, to issue to HPDC, as assignee of the entire right, title and interest, any and all Letters Patent for said invention(s) or improvement(s), including any and all Letters Patent of the United States which may be issued and granted on or as a result of the application aforesaid, in accordance with the terms of this assignment.

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Inventor's Signature	Dale Assignment Signed
Ke-Yan Liu	
Inventor's Typed Name	Date Application Signed
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Invenior's Skarature	Nov. 09, 201/
Inventor's Signature	
Liang Tang	المحرية بالمحرية المحرية المحر Date Application Signed
Inventor's Typed Name	Date Application Signed

Rev.09/11 (Assignment)

Page 1 of 2

HEWLETT-PACKARD COMPANY Intellectual Property Administrator 3404 E. Harmony Road Mail Stop 35 Fort Collins, Colorado 80528:

PATENT APPLICATION

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ASSIGNMENT OF PATENT APPLICATION (cont.)

Inventor's Signature	Date Assignment Signed
Lei Wang	
Inventor's Typed Name	Date Application Signed
ales-	2011: 11: 9
Inventor's Signature	Date Assignment Signed
Wei Liu	2011. 11. 9 Date Application Signed
Inventor's Typed Name	Date Application Signed
Inventor's Signature	Date Assignment Signed
Inventor's Typed Name	Date Application Signed
Inventor's Signature	Date Assignment Signed
Inventor's Typed Name	Date Application Signed
Inventor's Signature	Date Assignment Signed
Inventor's Typed Name	Date Application:Signed
nvëntor's Signature	Date Assignment Signed
nventor's Typed Name	Date Application Signed

Rev 09/11 (Assignment)

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PATENT REEL: 027513 FRAME: 0218