

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

Assignment ID: PATI320465

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST
CONVEYING PARTY DATA	
Name	Execution Date
Theta Ray Ltd	06/21/2024
RECEIVING PARTY DATA	
Company Name:	HSBC Bank plc
Street Address:	European Corporate Banking Centre
Internal Address:	8 Canada Square
City:	London
State/Country:	UNITED KINGDOM
Postal Code:	E14 5HQ
PROPERTY NUMBERS Total: 19	
Property Type	Number
Patent Number:	8355998
Patent Number:	9843596
Patent Number:	10187409
Patent Number:	10333953
Patent Number:	9147162
Patent Number:	9942254
Patent Number:	10063581
Patent Number:	10432654
Patent Number:	10509695
Patent Number:	10148680
Patent Number:	10419470
Patent Number:	10798118
Patent Number:	10812515
Patent Number:	10296832
Patent Number:	10719768
Patent Number:	11049004
Patent Number:	10692004
Patent Number:	11886994
Patent Number:	11935385

PATENT

CORRESPONDENCE DATA**Fax Number:**

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: 6196992928
Email: julia.brow@us.dlapiper.com
Correspondent Name: DLA Piper (LLP)
Address Line 1: 4365 Executive Drive
Address Line 2: Suite 1100
Address Line 4: San Diego, CALIFORNIA 92121

ATTORNEY DOCKET NUMBER:	442400.000031
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NAME OF SUBMITTER:	Julia Brow
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SIGNATURE:	Julia Brow
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DATE SIGNED:	06/25/2024
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Total Attachments: 12

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INTELLECTUAL PROPERTY SECURITY AGREEMENT

This Intellectual Property Security Agreement (this “Agreement”) is entered into as of June 21, 2024, by and between HSBC BANK PLC (“Bank”) and **THETA RAY LTD**, an Israeli corporation with its principal place of business located at 8 Ha'nagar Hod Ha'sharon, Israel (“Grantor”).

RECITALS

A. Bank has agreed to make certain advances of money and to extend certain financial accommodations to Grantor and certain of its affiliates (the “Loans”) in the amounts and manner set forth in that certain Loan and Security Agreement by and among (i) Bank, (ii) Grantor, (iii) Theta Ray, Inc., a Delaware corporation (“US Borrower” and, together with Grantor, collectively, “Borrower”), and (iv) the other parties thereto, dated as of the date hereof (as the same may be amended, modified or supplemented from time to time, the “Loan Agreement”; capitalized terms used herein are used as defined in the Loan Agreement). Bank is willing to make the Loans to Borrower, but only upon the condition, among others, that Grantor shall grant to Bank a security interest in its Copyrights, Trademarks, Patents, and Mask Works (as each term is described below) to secure the obligations of Borrower to Bank.

B. Pursuant to the terms of the Loan Agreement, Grantor has granted to Bank a security interest in all of Grantor’s right, title and interest, whether presently existing or hereafter acquired, in, to and under all of the Collateral.

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, and intending to be legally bound, as collateral security for the prompt and complete payment when due of Borrower’s obligations to Bank, Grantor hereby represents, warrants, covenants and agrees as follows:

AGREEMENT

1. Grant of Security Interest. To secure Borrower’s obligations to Bank, Grantor grants and pledges to Bank a security interest in all of Grantor’s right, title and interest in, to and under its intellectual property (all of which shall collectively be called the “Intellectual Property Collateral”), including, without limitation, the following:

(a) Any and all copyright rights, copyright applications, copyright registrations and like protections in each work of authorship and derivative work thereof, whether published or unpublished and whether or not the same also constitutes a trade secret, now or hereafter existing, created, acquired or held, including without limitation those set forth on Exhibit A attached hereto (collectively, the “Copyrights”);

(b) Any and all trade secrets, and any and all intellectual property rights in computer software and computer software products now or hereafter existing, created, acquired or held;

(c) Any and all design rights that may be available to Grantor now or hereafter existing, created, acquired or held;

(d) All patents, patent applications and like protections including, without limitation, improvements, divisions, continuations, renewals, reissues, extensions and continuations-in-part of the same, including without limitation the patents and patent applications set forth on Exhibit B attached hereto (collectively, the "Patents");

(e) Any trademark and servicemark rights, whether registered or not, applications to register and registrations of the same and like protections, and the entire goodwill of the business of Grantor connected with and symbolized by such trademarks, including without limitation those set forth on Exhibit C attached hereto (collectively, the "Trademarks");

(f) All mask works or similar rights available for the protection of semiconductor chips, now owned or hereafter acquired, including, without limitation those set forth on Exhibit D attached hereto (collectively, the "Mask Works");

(g) Any and all claims for damages by way of past, present and future infringements of any of the rights included above, with the right, but not the obligation, to sue for and collect such damages for said use or infringement of the intellectual property rights identified above;

(h) All licenses or other rights to use any of the Copyrights, Patents, Trademarks, or Mask Works and all license fees and royalties arising from such use to the extent permitted by such license or rights;

(i) All amendments, extensions, renewals and extensions of any of the Copyrights, Trademarks, Patents, or Mask Works; and

(j) All proceeds and products of the foregoing, including without limitation all payments under insurance or any indemnity or warranty payable in respect of any of the foregoing.

2. Recordation. Grantor authorizes the Commissioner for Patents, the Commissioner for Trademarks and the Register of Copyrights and any other government officials to record and register this Agreement upon request by Bank.

3. Authorization. Grantor hereby authorizes Bank to (a) modify this Agreement unilaterally by amending the exhibits to this Agreement to include any Intellectual Property Collateral which Grantor obtains subsequent to the date of this Agreement, and (b) file a duplicate original of this Agreement containing amended exhibits reflecting such new Intellectual Property Collateral.

4. Loan Documents. This Agreement has been entered into pursuant to and in conjunction with the Loan Agreement, which is hereby incorporated by reference. The provisions of the Loan Agreement shall supersede and control over any conflicting or inconsistent provision herein. The rights and remedies of Bank with respect to the Intellectual Property Collateral are as provided by the Loan Agreement and related documents, and nothing in this Agreement shall be deemed to limit such rights and remedies.

5. Execution in Counterparts. This Agreement may be executed in any number of counterparts and all of such counterparts taken together shall be deemed to constitute one and the same instrument. Each party hereto may execute this Agreement by electronic means and recognizes and accepts the use of electronic signatures and records by any other party hereto in connection with the execution and storage hereof.

6. Successors and Assigns. This Agreement will be binding on and shall inure to the benefit of the parties hereto and their respective successors and assigns.

7. Choice of Law, Venue, and Jury Trial. All parties to this Agreement irrevocably and unconditionally agree that the provisions of Section 11 of the Loan Agreement shall be incorporated herein, mutatis mutandis, as if set forth herein in full.

[Signature page follows]

IN WITNESS WHEREOF, the parties have caused this Intellectual Property Security Agreement to be duly executed by its officers thereunto duly authorized as of the first date written above.

GRANTOR:

THETA RAY LTD.

By: DocuSigned by: Barak Klein F0688A173363441... DocuSigned by: Peter Reynolds B2F78CDB358E4407...

Title: CFO and GM Israel

BANK:

HSBC BANK PLC

By: DocuSigned by: Darryll Coates F78E9EED24C14C1...

Title: Head of ECBC

EXHIBIT A

Copyrights

No registered Copyrights

EXHIBIT B**Patents**

1. The Company has filed the following patent applications and owns the rights to the issued patents on the following patents:

CLUSTERING AND CLASSIFICATION VIA LOCALIZED DIFFUSION FOLDERS

Our Ref	Country	Earliest Priority	Entry Date	Filing Date Application No.	Publication Date + No. Issue Date + Patent No.	Status
AVERBUCH-0013 US	USA Basic	19-Feb-2009 61/153,649	18-Feb-2010	18-Feb-2010 12/708,293	15-Jan-2013 US 8,355,998 B1	Granted

ANOMALY DETECTION IN DYNAMICALLY EVOLVING DATA AND SYSTEMS

Our Ref	Country	Earliest Priority	Entry Date	Filing Date Application No.	Publication Date + No. Issue Date + Patent No.	Status
AVERBUCH-0041 US CON	USA CON	02-Nov-2007 60/985,172	03-Jul-2015	03-Jul-2015 14/791,269	12-Dec-2017 US 9,843,596 B1	Granted
AVERBUCH-0041 US CON1	USA CON	02-Nov-2007 60/985,172	06-Nov-2017	06-Nov-2017 15/804,287	22-Jan-2019 US 10,187,409 B1	Granted
AVERBUCH-0041 US CON2	USA CON	02-Nov-2007 60/985,172	10-Dec-2017	10-Dec-2017 15/836,876	25-Jun-2019 US 10,333,953 B1	Granted
AVERBUCH-0041 US CON3	USA CON	02-Nov-2007 60/985,172	06-May-2019	06-May-2019 16/403,687		Abandoned

**METHOD FOR CLASSIFICATION OF NEWLY ARRIVED MULTIDIMENSIONAL DATA
POINTS IN DYNAMIC BIG DATA SETS**

Our Ref	Country	Earliest Priority	Entry Date	Filing Date Application No.	Publication Date + No. Issue Date + Patent No.	Status
AVERBUCH-0056 US	USA Basic	15-Mar-2012 61/611,282	15-Mar-2013	15-Mar-2013 13/832,098	Publ. Date: 19-Sep-2013 Publ. #: US 2013/0246325 A1 29-Sep-2015 US 9,147,162 B2	Granted

MEASURE BASED ANOMALY DETECTION

Our Ref	Country	Earliest Priority	Entry Date	Filing Date Application No.	Publication Date + No. Issue Date + Patent No.	Status
AVERBUCH-0120 US PR	USA PRO			10-Jul-2014 62/022,672		Expired
AVERBUCH-0120 US	USA Basic	10-Jul-2014 62/022,672	10-Jul-2015	10-Jul-2015 14/796,339	10-Apr-2018 US 9,942,254 B1	Granted
AVERBUCH-0120 US CON	USA CON	10-Jul-2014 62/022,672	14-Mar-2018	14-Mar-2018 15/921,227	28-Aug-2018 US 10,063,581 B1	Granted
AVERBUCH-0120 US CON1	USA CON	10-Jul-2014 62/022,672	22-Aug-2018	22-Aug-2018 16/108,130	1-Oct-2019 US 10,432,654 B1	Granted

ANOMALY DETECTION IN DYNAMICALLY EVOLVING DATA USING LOW RANK MATRIX DECOMPOSITION

Our Ref	Country	Earliest Priority	Entry Date	Filing Date Application No.	Publication Date + No. Issue Date + Patent No.	Status
THETARAY-0147 US PR	USA PRO			30-Mar-2015 62/139,813		Expired
THETARAY-0147 US	USA Basic	30-Mar-2015 62/139,813		30-Mar-2016 15/085,006	17-Dec-2019 US 10,509,695 B1	Granted

SYSTEM AND METHOD FOR ANOMALY DETECTION IN DYNAMICALLY EVOLVING DATA USING HYBRID DECOMPOSITION

Our Ref	Country	Earliest Priority	Entry Date	Filing Date Application No.	Publication Date + No. Issue Date + Patent No.	Status
THETARAY-0156 US PR	USA PRO			15-Jun-2015 62/175,469		Expired
THETARAY-0156 US	USA Basic	15-Jun-2015 62/175,469		15-Jun-2016 15/183,102	04-Dec-2018 US 10,148,680 B1	Granted
THETARAY-0156 US CON	USA CON	15-Jun-2015 62/175,469		25-Nov-2018 16/199,194	17-Sep-2019 US 10,419,470 B1	Granted

THETARAY-0156 US CON1	USA CON	15-Jun-2015 62/175,469		21-Jun-2019 16/447,981	6-Oct-2020 US 10,798,118 B1	Granted
THETARY-0156 US CON2	USA CON	15-Jun-2015 62/175,469		29-Sep-2019 16/586,992	20-Oct-2020 US 10,812,515 B1	Granted

SYSTEM AND METHOD FOR DETECTING AN UNDESIRABLE EVENT

Our Ref	Country	Earliest Priority	Entry Date	Filing Date Application No.	Publication Date + No. Issue Date + Patent No.	Status
THETARAY-0161 US	USA Basic			05-Dec-2015 14/960,371	21-May-2019 US 10,296,832 B1	Granted
THETARAY-0161 US CON	USA CON	05-Dec-2015 14/960,371		01-Apr-2019 16/371,311	21-July-2020 US 10,719,768 B1	Granted

SYSTEM AND METHOD FOR ANOMALY DETECTION IN DYNAMICALLY EVOLVING DATA USING RANDOM NEURAL NETWORK DECOMPOSITION

Our Ref	Country	Earliest Priority	Entry Date	Filing Date Application No.	Publication Date + No. Issue Date + Patent No.	Status
THETARAY-0170 US PR	USA PRO			15-Nov-2015 62/255,480		Expired
THETARAY-0170 US	USA Basic	15-Nov-2015 62/255,480		11-Nov-2016 15/348,996	29-Jun-2021 US 11,049,004	Granted
THETARAY-0170 US CON	USA CON	15-Nov-2015 62/255,480		30-Jun-2019 16/458,096	23-Jun-2020 US 10,692,004	Granted
THETARAY-0170 US CON1	USA CON	15-Nov-2015 62/255,480		11-Jun-2021 17/345,230	30-Jan-2024 US 11,886,994 B2	Granted

ANOMALY DETECTION USING DICTIONARY BASED PROJECTION

Our Ref	Country	Earliest Priority	Entry Date	Filing Date Application No.	Publication Date + No. Issue Date + Patent No.	Status
THETARAY-0475 US PR	USA PRO			5-Aug-2020 62/255,480		Expired

THETARAY-0475 US	USA	5-Aug-2020 62/255,480		18-Jul-2021 17/378,713	19-Mar-2024 US 11,935,385	Granted
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SEMI-SUPERVISED AND UN-SUPERVISED ANOMAY DETECTION

Our Ref	Country	Earliest Priority	Entry Date	Filing Date Application No.	Publication Date + No. Issue Date + Patent No.	Status
THETARAY-0581 US PR	USA PRO			11-Apr-2021 63/173,454		Expired
THETARAY-0581 US	USA	11-Apr-2021 63/173,454		09-Apr-2022 17/717,045		Pending

SYSTEM AND METHOD FOR IDENTIFYING THE CAUSE OF AN UNDESIRABLE EVENT

Our Ref	Country	Earliest Priority	Entry Date	Filing Date Application No.	Publication Date + No. Issue Date + Patent No.	Status
THETARAY-0733 US PR	USA PRO			20-Jun-2022 63/353,666		Expired
THETARAY-0733 US	USA			19-Jun-2023 18/337,200		Pending

ANOMALY DETECTION FROM DATA DISTRIBUTION OF DYNAMICALLY EVOLVING DATA AND SYSTEMS

Our Ref	Country	Earliest Priority	Entry Date	Filing Date Application No.	Publication Date + No. Issue Date + Patent No.	Status
THETARAY-0868 US PR	USA PRO			08-Dec-2022 63/431,085		Filed

**ANOMALY DETECTION FROM DATA DISTRIBUTION OF DYNAMICALLY EVOLVING
DATA AND SYSTEMS**

Our Ref	Country	Earliest Priority	Entry Date	Filing Date Application No.	Publication Date + No. Issue Date + Patent No.	Status
THETARAY- 0895 US PR	USA PRO			10-May-2023 63/465,384		Filed

**ANOMALY DETECTION FROM DATA DISTRIBUTION OF DYNAMICALLY EVOLVING
DATA AND SYSTEMS**

Our Ref	Country	Earliest Priority	Entry Date	Filing Date Application No.	Publication Date + No. Issue Date + Patent No.	Status
THETARAY- 0914 US PR	USA PRO			23-Apr-2023 63/461,301		Filed

**DERIVATION OF A SCORING FUNCTION FOR ANOMALY DETECTION USING SEMI-
SUPERVISED LAPLACIAN EIGENMAPS**

Our Ref	Country	Earliest Priority	Entry Date	Filing Date Application No.	Publication Date + No. Issue Date + Patent No.	Status
THETARAY- 0940 US PR	USA PRO			07-Jun-2023 63/506,610		Filed

**ANOMALY DETECTION BASED ON A SCORING FUNCTION DERIVED USING
NORMALIZING FLOWS**

Our Ref	Country	Earliest Priority	Entry Date	Filing Date Application No.	Publication Date + No. Issue Date + Patent No.	Status
THETARAY- 1009 US PR	USA PRO			10-Jan-2024 63/619,347		Filed

EXHIBIT C

Trademarks

Description

Registration/
Application
Number

Registration/
Application
Date

1. The Company holds common law rights by virtue of use of the following mark: "Theta Ray"
2. Company's unregistered logo:



EXHIBIT D

Mask Works

Description

Registration/
Application
Number

Registration/
Application
Date

N/A