2.D.1 Statement by Each Submitter

I, ROBERTO AVANZI of ARM, 110 Fulbourn Rd, Cambridge CB1 9NJ, UK, do hereby declare that the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as CRYSTALS-Kyber, is my own original work, or if submitted jointly with others, is the original work of the joint submitters.

I further declare that (check one):

✓ *I do not hold and do not intend to hold any patent or patent application with a claim which may cover the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as CRYSTALS-Kyber;*
OR *(check one or both of the following):*

☐ *to the best of my knowledge, the practice of the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as CRYSTALS-Kyber, may be covered by the following U.S. and/or foreign patents: NONE;*

☐ *I do hereby declare that, to the best of my knowledge, the following pending U.S. and/or foreign patent applications may cover the practice of my submitted cryptosystem, reference implementation or optimized implementations: NONE.*

I do hereby acknowledge and agree that my submitted cryptosystem will be provided to the public for review and will be evaluated by NIST, and that it might not be selected for standardization by NIST. I further acknowledge that I will not receive financial or other compensation from the U.S. Government for my submission. I certify that, to the best of my knowledge, I have fully disclosed all patents and patent applications which may cover my cryptosystem, reference implementation or optimized implementations. I also acknowledge and agree that the U.S. Government may, during the public review and the evaluation process, and, if my submitted cryptosystem is selected for standardization, during the lifetime of the standard, modify my submitted cryptosystem's specifications (e.g., to protect against a newly discovered vulnerability).

I acknowledge that NIST will announce any selected cryptosystem(s) and proceed to publish the draft standards for public comment

I do hereby agree to provide the statements required by Sections 2.D.2 and 2.D.3 in the Call For Proposals for any patent or patent application identified to cover the practice of my cryptosystem, reference implementation or optimized implementations and the right to use such implementations for the purposes of the public review and evaluation process.

I acknowledge that, during the post-quantum algorithm evaluation process, NIST may remove my cryptosystem from consideration for standardization. If my cryptosystem (or the derived cryptosystem) is removed from consideration for standardization or withdrawn from consideration by all submitter(s) and owner(s), I understand that rights granted and assurances made under Sections 2.D.1, 2.D.2 and 2.D.3 of the Call For Proposals, including use rights of the reference and optimized implementations, may be withdrawn by the submitter(s) and

RA

owner(s), as appropriate.

Signed: Roberto Avanzi

Title: Senior Principal Cryptography and Security Architect
Date: November 15, 2017
Place: Munich, Germany

2.D.1 Statement by Each Submitter

I, Joppe W. Bos, of NXP Semiconductors, Interleuvenlaan 80, 3001, Leuven, Belgium, do hereby declare that the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as Kyber, is my own original work, or if submitted jointly with others, is the original work of the joint submitters.

I further declare that:

> **X** *I do not hold and do not intend to hold any patent or patent application with a claim which may cover the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as Kyber.*

I do hereby acknowledge and agree that my submitted cryptosystem will be provided to the public for review and will be evaluated by NIST, and that it might not be selected for standardization by NIST. I further acknowledge that I will not receive financial or other compensation from the U.S. Government for my submission. I certify that, to the best of my knowledge, I have fully disclosed all patents and patent applications which may cover my cryptosystem, reference implementation or optimized implementations. I also acknowledge and agree that the U.S. Government may, during the public review and the evaluation process, and, if my submitted cryptosystem is selected for standardization, during the lifetime of the standard, modify my submitted cryptosystem's specifications (e.g., to protect against a newly discovered vulnerability).

I acknowledge that NIST will announce any selected cryptosystem(s) and proceed to publish the draft standards for public comment

I do hereby agree to provide the statements required by Sections 2.D.2 and 2.D.3, below, for any patent or patent application identified to cover the practice of my cryptosystem, reference implementation or optimized implementations and the right to use such implementations for the purposes of the public review and evaluation process.

I acknowledge that, during the post-quantum algorithm evaluation process, NIST may remove my cryptosystem from consideration for standardization. If my cryptosystem (or the derived cryptosystem) is removed from consideration for standardization or withdrawn from consideration by all submitter(s) and owner(s), I understand that rights granted and assurances made under Sections 2.D.1, 2.D.2 and 2.D.3, including use rights of the reference and optimized implementations, may be withdrawn by the submitter(s) and owner(s), as appropriate.

Signed:

Title: Joppe W. Bos, PhD
Date: November 2nd 2017
Place: Leuven, Belgium

2.D.1 Statement by Each Submitter

I, *Léo Ducas, of CWI, Science Park 123, 1098 XG Amsterdam, The Netherlands, do hereby declare that the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as CRYSTALS-Kyber, is my own original work, or if submitted jointly with others, is the original work of the joint submitters.*

> *I do not hold and do not intend to hold any patent or patent application with a claim which may cover the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as CRYSTALS-Kyber;*

I do hereby acknowledge and agree that my submitted cryptosystem will be provided to the public for review and will be evaluated by NIST, and that it might not be selected for standardization by NIST. I further acknowledge that I will not receive financial or other compensation from the U.S. Government for my submission. I certify that, to the best of my knowledge, I have fully disclosed all patents and patent applications which may cover my cryptosystem, reference implementation or optimized implementations. I also acknowledge and agree that the U.S. Government may, during the public review and the evaluation process, and, if my submitted cryptosystem is selected for standardization, during the lifetime of the standard, modify my submitted cryptosystem's specifications (e.g., to protect against a newly discovered vulnerability).

I acknowledge that NIST will announce any selected cryptosystem(s) and proceed to publish the draft standards for public comment

I do hereby agree to provide the statements required by Sections 2.D.2 and 2.D.3 in the Call For Proposals for any patent or patent application identified to cover the practice of my cryptosystem, reference implementation or optimized implementations and the right to use such implementations for the purposes of the public review and evaluation process.

I acknowledge that, during the post-quantum algorithm evaluation process, NIST may remove my cryptosystem from consideration for standardization. If my cryptosystem (or the derived cryptosystem) is removed from consideration for standardization or withdrawn from consideration by all submitter(s) and owner(s), I understand that rights granted and assurances made under Sections 2.D.1, 2.D.2 and 2.D.3 of the Call For Proposals, including use rights of the reference and optimized implementations, may be withdrawn by the submitter(s) and owner(s), as appropriate.

Signed:

Title: Dr. Léo Ducas

Date: 10 November 2017

Place: Amsterdam, The Netherlands

2.D.1 Statement by Each Submitter

I, **Eike Kiltz**, of Knappenstr. 16, 44799 Bochum, Germany, do hereby declare that the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as **CRYSTALS-Kyber**, is my own original work, or if submitted jointly with others, is the original work of the joint submitters.

I further declare that (check one):

☑ I do not hold and do not intend to hold any patent or patent application with a claim which may cover the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as **CRYSTALS-Kyber**; **OR** (check one or both of the following):

    ☐ to the best of my knowledge, the practice of the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as _____ (print name of cryptosystem)_____, may be covered by the following U.S. and/or foreign patents: _____ (describe and enumerate or state "none" if applicable)_____ ;

    ☐ I do hereby declare that, to the best of my knowledge, the following pending U.S. and/or foreign patent applications may cover the practice of my submitted cryptosystem, reference implementation or optimized implementations: _____ (describe and enumerate or state "none" if applicable) _____.

I do hereby acknowledge and agree that my submitted cryptosystem will be provided to the public for review and will be evaluated by NIST, and that it might not be selected for standardization by NIST. I further acknowledge that I will not receive financial or other compensation from the U.S. Government for my submission. I certify that, to the best of my knowledge, I have fully disclosed all patents and patent applications which may cover my cryptosystem, reference implementation or optimized implementations. I also acknowledge and agree that the U.S. Government may, during the public review and the evaluation process, and, if my submitted cryptosystem is selected for standardization, during the lifetime of the standard, modify my submitted cryptosystem's specifications (e.g., to protect against a newly discovered vulnerability).

I acknowledge that NIST will announce any selected cryptosystem(s) and proceed to publish the draft standards for public comment.

I do hereby agree to provide the statements required by Sections 2.D.2 and 2.D.3 in the Call For Proposals for any patent or patent application identified to cover the practice of my cryptosystem, reference implementation or optimized implementations and the right to use such implementations for the purposes of the public review and evaluation process.

I acknowledge that, during the post-quantum algorithm evaluation process, NIST may remove my cryptosystem from consideration for standardization. If my cryptosystem (or the derived cryptosystem) is removed from consideration for standardization or withdrawn from consideration by all submitter(s) and owner(s), I understand that rights granted and assurances

made under Sections 2.D.1, 2.D.2 and 2.D.3 of the Call For Proposals, including use rights of the reference and optimized implementations, may be withdrawn by the submitter(s) and owner(s), as appropriate.

Signed:

Title: Prof. Dr. Eike Kiltz
Date: Nov, 20th 2017
Place: Bochum

2.D.1 Statement by Each Submitter

I, SRI International, of 333 Ravenswood Avenue, Menlo Park, California 94025, do hereby declare that the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as **CRYSTALS-KYBER**, *is my own original work, or if submitted jointly with others, is the original work of the joint submitters.*

I further declare that (check one):

> ☑ *I do not hold and do not intend to hold any patent or patent application with a claim which may cover the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as* **CRYSTALS-KYBER**; **OR** *(check one or both of the following):*

>> *to the best of my knowledge, the practice of the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as _____ (print name of cryptosystem)_____, may be covered by the following U.S. and/or foreign patents: _____ (describe and enumerate or state "none" if applicable)_____ ;*
>> *I do hereby declare that, to the best of my knowledge, the following pending U.S. and/or foreign patent applications may cover the practice of my submitted cryptosystem, reference implementation or optimized implementations: _____ (describe and enumerate or state "none" if applicable) _____.*

I do hereby acknowledge and agree that my submitted cryptosystem will be provided to the public for review and will be evaluated by NIST, and that it might not be selected for standardization by NIST. I further acknowledge that I will not receive financial or other compensation from the U.S. Government for my submission. I certify that, to the best of my knowledge, I have fully disclosed all patents and patent applications which may cover my cryptosystem, reference implementation or optimized implementations. I also acknowledge and agree that the U.S. Government may, during the public review and the evaluation process, and, if my submitted cryptosystem is selected for standardization, during the lifetime of the standard, modify my submitted cryptosystem's specifications (e.g., to protect against a newly discovered vulnerability).

I acknowledge that NIST will announce any selected cryptosystem(s) and proceed to publish the draft standards for public comment

I do hereby agree to provide the statements required by Sections 2.D.2 and 2.D.3 in the Call For Proposals for any patent or patent application identified to cover the practice of my cryptosystem, reference implementation or optimized implementations and the right to use such implementations for the purposes of the public review and evaluation process.

I acknowledge that, during the post-quantum algorithm evaluation process, NIST may remove my cryptosystem from consideration for standardization. If my cryptosystem (or the derived cryptosystem) is removed from consideration for standardization or withdrawn from

consideration by all submitter(s) and owner(s), I understand that rights granted and assurances made under Sections 2.D.1, 2.D.2 and 2.D.3 of the Call For Proposals, including use rights of the reference and optimized implementations, may be withdrawn by the submitter(s) and owner(s), as appropriate.

Signed:

Title: Deputy General Counsel
Date: January 26, 2018
Place: Menlo Park, California

SRI Employee: Tancrede Lepoint
Signed:

Title: Advanced Computer Scientist II
Date: January 26, 2018
Place: Menlo Park, California

2.D.1 Statement by Each Submitter

I, Vadim Lyubashevsky, of Saeumerstrasse 4, 8803 Rueschlikon, Switzerland, do hereby declare that the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as CRYSTALS - Kyber, is my own original work, or if submitted jointly with others, is the original work of the joint submitters.

I further declare that (check one):

☒ *I do not hold and do not intend to hold any patent or patent application with a claim which may cover the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as CRYSTALS - Kyber;* **OR** *(check one or both of the following):*

    ☐ *to the best of my knowledge, the practice of the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as CRYSTALS - Kyber, may be covered by the following U.S. and/or foreign patents:none;*

    ☐ *I do hereby declare that, to the best of my knowledge, the following pending U.S. and/or foreign patent applications may cover the practice of my submitted cryptosystem, reference implementation or optimized implementations: none.*

I do hereby acknowledge and agree that my submitted cryptosystem will be provided to the public for review and will be evaluated by NIST, and that it might not be selected for standardization by NIST. I further acknowledge that I will not receive financial or other compensation from the U.S. Government for my submission. I certify that, to the best of my knowledge, I have fully disclosed all patents and patent applications which may cover my cryptosystem, reference implementation or optimized implementations. I also acknowledge and agree that the U.S. Government may, during the public review and the evaluation process, and, if my submitted cryptosystem is selected for standardization, during the lifetime of the standard, modify my submitted cryptosystem's specifications (e.g., to protect against a newly discovered vulnerability).

I acknowledge that NIST will announce any selected cryptosystem(s) and proceed to publish the draft standards for public comment

I do hereby agree to provide the statements required by Sections 2.D.2 and 2.D.3 in the Call For Proposals for any patent or patent application identified to cover the practice of my cryptosystem, reference implementation or optimized implementations and the right to use such implementations for the purposes of the public review and evaluation process.

I acknowledge that, during the post-quantum algorithm evaluation process, NIST may remove my cryptosystem from consideration for standardization. If my cryptosystem (or the derived cryptosystem) is removed from consideration for standardization or withdrawn from consideration by all submitter(s) and owner(s), I understand that rights granted and assure made under Sections 2.D.1, 2.D.2 and 2.D.3 of the Call For Proposals, including use righ the reference and optimized implementations, may be withdrawn by the submitter(s) and

owner(s), as appropriate.

Signed: [signature]

Title:

Date: 3.4. 2018

Place: Ruschlikon

2.D.1 Statement by Each Submitter

I, Gregor Seiler, of Saeumerstrasse 4, 8803 Rueschlikon, Switzerland, do hereby declare that the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as CRYSTALS - Kyber, is my own original work, or if submitted jointly with others, is the original work of the joint submitters.

I further declare that (check one):

☒ *I do not hold and do not intend to hold any patent or patent application with a claim which may cover the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as CRYSTALS - Kyber;* **OR** *(check one or both of the following):*

☐ *to the best of my knowledge, the practice of the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as CRYSTALS - Kyber, may be covered by the following U.S. and/or foreign patents: none;*

☐ *I do hereby declare that, to the best of my knowledge, the following pending U.S. and/or foreign patent applications may cover the practice of my submitted cryptosystem, reference implementation or optimized implementations: none.*

I do hereby acknowledge and agree that my submitted cryptosystem will be provided to the public for review and will be evaluated by NIST, and that it might not be selected for standardization by NIST. I further acknowledge that I will not receive financial or other compensation from the U.S. Government for my submission. I certify that, to the best of my knowledge, I have fully disclosed all patents and patent applications which may cover my cryptosystem, reference implementation or optimized implementations. I also acknowledge and agree that the U.S. Government may, during the public review and the evaluation process, and, if my submitted cryptosystem is selected for standardization, during the lifetime of the standard, modify my submitted cryptosystem's specifications (e.g., to protect against a newly discovered vulnerability).

I acknowledge that NIST will announce any selected cryptosystem(s) and proceed to publish the draft standards for public comment

I do hereby agree to provide the statements required by Sections 2.D.2 and 2.D.3 in the Call For Proposals for any patent or patent application identified to cover the practice of my cryptosystem, reference implementation or optimized implementations and the right to use such implementations for the purposes of the public review and evaluation process.

I acknowledge that, during the post-quantum algorithm evaluation process, NIST may remove my cryptosystem from consideration for standardization. If my cryptosystem (or the derived cryptosystem) is removed from consideration for standardization or withdrawn from consideration by all submitter(s) and owner(s), I understand that rights granted and assurances made under Sections 2.D.1, 2.D.2 and 2.D.3 of the Call For Proposals, including use rights of the reference and optimized implementations, may be withdrawn by the submitter(s) and

owner(s), as appropriate.

Signed: G. Seiler

Title:

Date: 4/2/2018

Place: Rueschlikon

2.D.1 Statement by Each Submitter

I, _John M. Schanck_, of _9 May Place, Kitchener, Ontario N2H 1B9, Canada_ , do hereby declare that the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as _CRYSTALS-Kyber_, is my own original work, or if submitted jointly with others, is the original work of the joint submitters.

I further declare that

- I do not hold and do not intend to hold any patent or patent application with a claim which may cover the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as _CRYSTALS-Kyber._

I do hereby acknowledge and agree that my submitted cryptosystem will be provided to the public for review and will be evaluated by NIST, and that it might not be selected for standardization by NIST. I further acknowledge that I will not receive financial or other compensation from the U.S. Government for my submission. I certify that, to the best of my knowledge, I have fully disclosed all patents and patent applications which may cover my cryptosystem, reference implementation or optimized implementations. I also acknowledge and agree that the U.S. Government may, during the public review and the evaluation process, and, if my submitted cryptosystem is selected for standardization, during the lifetime of the standard, modify my submitted cryptosystem's specifications (e.g., to protect against a newly discovered vulnerability).

I acknowledge that NIST will announce any selected cryptosystem(s) and proceed to publish the draft standards for public comment

I do hereby agree to provide the statements required by Sections 2.D.2 and 2.D.3 in the Call For Proposals for any patent or patent application identified to cover the practice of my cryptosystem, reference implementation or optimized implementations and the right to use such implementations for the purposes of the public review and evaluation process.

I acknowledge that, during the post-quantum algorithm evaluation process, NIST may remove my cryptosystem from consideration for standardization. If my cryptosystem (or the derived cryptosystem) is removed from consideration for standardization or withdrawn from consideration by all submitter(s) and owner(s), I understand that rights granted and assurances made under Sections 2.D.1, 2.D.2 and 2.D.3 of the Call For Proposals, including use rights of the reference and optimized implementations, may be withdrawn by the submitter(s) and owner(s), as appropriate.

Signed:
Title: Mr.

Date: 2017-11-14
Place: Waterloo, Ontario, Canada

2.D.1 Statement by Each Submitter

I, Peter Schwabe, of Radboud University, Comeniuslaan 4, 6525 HP Nijmegen, The Netherlands, do hereby declare that the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as CRYSTALS-Kyber, is my own original work, or if submitted jointly with others, is the original work of the joint submitters.

I further declare that (check one):

☑ *I do not hold and do not intend to hold any patent or patent application with a claim which may cover the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as CRYSTALS-Kyber; **OR** (check one or both of the following):*

☐ *to the best of my knowledge, the practice of the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as CRYSTALS-Kyber, may be covered by the following U.S. and/or foreign patents:none;*

☐ *I do hereby declare that, to the best of my knowledge, the following pending U.S. and/or foreign patent applications may cover the practice of my submitted cryptosystem, reference implementation or optimized implementations:none.*

I do hereby acknowledge and agree that my submitted cryptosystem will be provided to the public for review and will be evaluated by NIST, and that it might not be selected for standardization by NIST. I further acknowledge that I will not receive financial or other compensation from the U.S. Government for my submission. I certify that, to the best of my knowledge, I have fully disclosed all patents and patent applications which may cover my cryptosystem, reference implementation or optimized implementations. I also acknowledge and agree that the U.S. Government may, during the public review and the evaluation process, and, if my submitted cryptosystem is selected for standardization, during the lifetime of the standard, modify my submitted cryptosystem's specifications (e.g., to protect against a newly discovered vulnerability).
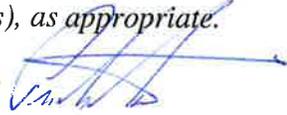
I acknowledge that NIST will announce any selected cryptosystem(s) and proceed to publish the draft standards for public comment

I do hereby agree to provide the statements required by Sections 2.D.2 and 2.D.3 in the Call For Proposals for any patent or patent application identified to cover the practice of my cryptosystem, reference implementation or optimized implementations and the right to use such implementations for the purposes of the public review and evaluation process.

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owner(s), as appropriate.

Signed:

Title: Dr. Peter Schwabe, Assistant Professor

Date: Nov. 7, 2017

Place: Nijmegen, The Netherlands

2.D.1 Statement by Each Submitter

I, DAMIEN N. STEHLE, of ENS DE LYON, 15 PARVIS RENE DESCARTES 69007 LYON FRANCE , do hereby declare that the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as CRYSTALS-Kyber, is my own original work, or if submitted jointly with others, is the original work of the joint submitters.

I further declare that (check one):

☒ *I do not hold and do not intend to hold any patent or patent application with a claim which may cover the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as CRYSTALS-Kyber;* **OR** *(check one or both of the following):*

    ☐ *to the best of my knowledge, the practice of the cryptosystem, reference implementation, or optimized implementations that I have submitted, known as ____ (print name of cryptosystem)____, may be covered by the following U.S. and/or foreign patents: _____ (describe and enumerate or state "none" if applicable)_____ ;*

    ☐ *I do hereby declare that, to the best of my knowledge, the following pending U.S. and/or foreign patent applications may cover the practice of my submitted cryptosystem, reference implementation or optimized implementations: _____ (describe and enumerate or state "none" if applicable) _____.*

I do hereby acknowledge and agree that my submitted cryptosystem will be provided to the public for review and will be evaluated by NIST, and that it might not be selected for standardization by NIST. I further acknowledge that I will not receive financial or other compensation from the U.S. Government for my submission. I certify that, to the best of my knowledge, I have fully disclosed all patents and patent applications which may cover my cryptosystem, reference implementation or optimized implementations. I also acknowledge and agree that the U.S. Government may, during the public review and the evaluation process, and, if my submitted cryptosystem is selected for standardization, during the lifetime of the standard, modify my submitted cryptosystem's specifications (e.g., to protect against a newly discovered vulnerability).

I acknowledge that NIST will announce any selected cryptosystem(s) and proceed to publish the draft standards for public comment

I do hereby agree to provide the statements required by Sections 2.D.2 and 2.D.3 in the Call For Proposals for any patent or patent application identified to cover the practice of my cryptosystem, reference implementation or optimized implementations and the right to use such implementations for the purposes of the public review and evaluation process.

I acknowledge that, during the post-quantum algorithm evaluation process, NIST may remove my cryptosystem from consideration for standardization. If my cryptosystem (or the derived cryptosystem) is removed from consideration for standardization or withdrawn from consideration by all submitter(s) and owner(s), I understand that rights granted and assurances

made under Sections 2.D.1, 2.D.2 and 2.D.3 of the Call For Proposals, including use rights of the reference and optimized implementations, may be withdrawn by the submitter(s) and owner(s), as appropriate.

Signed: Damien Stehlé
Title: Professor
Date: November 09, 2017
Place: Lyon, France

2.D.3 Statement by Reference/Optimized Implementations' Owner(s)

The following must also be included:

I, DAMIEN N. STEHLE , ENS DE LYON 15 PARVIS RENE DESCARTES 69007 LYON FRANCE, am the owner of the submitted reference implementation and optimized implementations and hereby grant the U.S. Government and any interested party the right to reproduce, prepare derivative works based upon, distribute copies of, and display such implementations for the purposes of the post-quantum algorithm public review and evaluation process, and implementation if the corresponding cryptosystem is selected for standardization and as a standard, notwithstanding that the implementations may be copyrighted or copyrightable.

Signed: Damien Stehlé
Title: Professor
Date: November 09, 2017
Place: Lyon, France

2.D.3 Statement by Reference/Optimized Implementations' Owner(s)

The following must also be included:

I, <u>John M. Schanck</u> , of <u>9 May Place, Kitchener, Ontario N2H 1B9, Canada</u>, am the owner or authorized representative of the owner of the submitted reference implementation and optimized implementations and hereby grant the U.S. Government and any interested party the right to reproduce, prepare derivative works based upon, distribute copies of, and display such implementations for the purposes of the post-quantum algorithm public review and evaluation process, and implementation if the corresponding cryptosystem is selected for standardization and as a standard, notwithstanding that the implementations may be copyrighted or copyrightable.

Signed:

Title: Mr.

Date: 2017-11-14
Place: Waterloo, Ontario, Canada

2.D.3 Statement by Reference/Optimized Implementations' Owner(s)

The following must also be included:

I, Alessandro Curioni , Saeumerstrasse 4, 8803 Rueschlikon, Switzerland , am the owner or authorized representative of the owner IBM Research – Zurich of the submitted reference implementation and optimized implementations and hereby grant the U.S. Government and any interested party the right to reproduce, prepare derivative works based upon, distribute copies of, and display such implementations for the purposes of the post-quantum algorithm public review and evaluation process, and implementation if the corresponding cryptosystem is selected for standardization and as a standard, notwithstanding that the implementations may be copyrighted or copyrightable.

Signed:

Title: Lab Director IBM Research-Zurich

Date: 2018. 4. 9

Place: Ruschlikon

2.D.3 Statement by Reference/Optimized Implementations' Owner(s)

The following must also be included:

I, SRI International, of 333 Ravenswood Avenue, Menlo Park, California 94025, am the owner or authorized representative of the owner (SRI International) of the submitted reference implementation and optimized implementations and hereby grant the U.S. Government and any interested party the right to reproduce, prepare derivative works based upon, distribute copies of, and display such implementations for the purposes of the post-quantum algorithm public review and evaluation process, and implementation if the corresponding cryptosystem is selected for standardization and as a standard, notwithstanding that the implementations may be copyrighted or copyrightable.
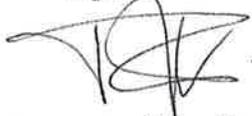
Signed:

Title: Deputy General Counsel
Date: January 26, 2018
Place: Menlo Park, California

Submitter: Tancrede Lepoint
Signed:

Title: Advanced Computer Scientist II
Date: January 26, 2018
Place: Menlo Park, California

2.D.3 Statement by Reference/Optimized Implementations' Owner(s)

The following must also be included:

I, **Eike Kiltz**, *Knappenstr. 16, 44799 Bochum, Germany, am the owner or authorized representative of the owner of the submitted reference implementation and optimized implementations and hereby grant the U.S. Government and any interested party the right to reproduce, prepare derivative works based upon, distribute copies of, and display such implementations for the purposes of the post-quantum algorithm public review and evaluation process, and implementation if the corresponding cryptosystem is selected for standardization and as a standard, notwithstanding that the implementations may be copyrighted or copyrightable.*

Signed:

Title: Prof. Dr. Eike Kiltz
Date: Nov, 20th, 2017
Place: Bochum

2.D.3 Statement by Reference/Optimized Implementations' Owner(s)

The following must also be included:

I, Peter Schwabe , Radboud University, Comeniuslaan 4, 6525 HP Nijmegen, The Netherlands, am the owner or authorized representative of the owner (print full name, if different than the signer) of the submitted reference implementation and optimized implementations and hereby grant the U.S. Government and any interested party the right to reproduce, prepare derivative works based upon, distribute copies of, and display such implementations for the purposes of the post-quantum algorithm public review and evaluation process, and implementation if the corresponding cryptosystem is selected for standardization and as a standard, notwithstanding that the implementations may be copyrighted or copyrightable.

Signed:

Title: Dr. Peter Schwabe, Assistant Professor

Date: Nov. 7, 2017

Place: Nijmegen, The Netherlands

2.D.2 Statement by Patent (and Patent Application) Owner(s)

If there are any patents (or patent applications) identified by the submitter, including those held by the submitter, the following statement must be signed by each and every owner, or each owner's authorized representative, of each patent and patent application identified.

I, _____ Jintai Ding_____ , of __8770 Wellerstation Drive, Montgomery, Ohio 45249 _____ , am the owner or authorized representative of the owner (print full name, if different than the signer) of the following patent(s) and/or patent application(s): _____ US9246675_____ , and do hereby commit and agree to grant to any interested party on a worldwide basis, if the cryptosystem known as ___ **CRYSTALS-KYBER** _____ is selected for standardization, in consideration of its evaluation and selection by NIST, a non-exclusive license for the purpose of implementing the standard (check one):

> without compensation and under reasonable terms and conditions that are demonstrably free of any unfair discrimination, **OR**
>
> √ under reasonable terms and conditions that are demonstrably free of any unfair discrimination.

I further do hereby commit and agree to license such party on the same basis with respect to any other patent application or patent hereafter granted to me, or owned or controlled by me, that is or may be necessary for the purpose of implementing the standard.

I further do hereby commit and agree that I will include, in any documents transferring ownership of each patent and patent application, provisions to ensure that the commitments and assurances made by me are binding on the transferee and any future transferee.

I further do hereby commit and agree that these commitments and assurances are intended by me to be binding on successors-in-interest of each patent and patent application, regardless of whether such provisions are included in the relevant transfer documents.

I further do hereby grant to the U.S. Government, during the public review and the evaluation process, and during the lifetime of the standard, a nonexclusive, nontransferrable, irrevocable, paid-up worldwide license solely for the purpose of

modifying my submitted cryptosystem's specifications (e.g., to protect against a newly discovered vulnerability) for incorporation into the standard.

Signed:

Title: Professor
Date: 02.19.2022
Place: Haidian