

ACTIVITY REPORTING FORM
THE IMU Simons Travel Fellowship PROGRAMME

(Deadline for completion: see grant letter)

Please attach at least 2 pictures to this report (to be sent by email) which shows you with your host.

1. Name of the Grantee: Bac Nguyen Trong
2. Country of origin of the Grantee: Vietnam
3. Name of the center of excellence visited: Kent State University, Kent city, Ohio, USA.
4. Name, position and email address of the host: Prof. Hai Dinh, Department of Mathematical Sciences, hdinh@kent.edu
5. Dates of the research visit: from November 20, 2017 to January 24 2018.

1. Activity report (at least 200 words) Listing research in progress, papers published or in preprint form:

- a) Three papers are accepted in ISI journals as follows:
 - 1) On $(\alpha + u\beta)$ -constacyclic codes of length $4p^s$ over $\mathbb{F}_{p^m} + u\mathbb{F}_{p^m}$, to appear, Journal of Algebra and Its Applications (ISI).
 - 2) On a class of constacyclic codes of length $4p^s$ over $\mathbb{F}_{p^m} + u\mathbb{F}_{p^m}$, to appear, Journal of Algebra and Its Applications (ISI).
 - 3) On A Class Of Constacyclic Codes Of Length $2p^s$ Over $\frac{\mathbb{F}_{p^m}[u]}{\langle u^a \rangle}$, to appear, Bulletin of the Korean Mathematical Society (ISI).
- b) One paper is accepted in Scopus as follows:
 - 1) On 2-primal modules, to appear, Thai Journal of Mathematics (Scopus)
- c) Moreover, four papers are submitted to ISI journals:
 - 1) Quantum symbol-pair codes of length $2p^s$ over \mathbb{F}_{p^m}
 - 2) Type 1 α -constacyclic codes of length $4p^s$ over $\frac{\mathbb{F}_{p^m}[u]}{\langle u^a \rangle}$.
 - 3) On A Class Of Constacyclic Codes Of Length $4p^s$ Over $\frac{\mathbb{F}_{p^m}[u]}{\langle u^a \rangle}$
 - 4) Hamming distance of constacyclic codes of length p^s over $\mathbb{F}_{p^m} + u\mathbb{F}_{p^m}$

2. Students and post-doctoral fellows advised:

- 1) Mr. T Minh Vo, Ph.D student at Department of Mathematical Sciences, Kent State University.
- 2) Mr. Parinyawat Choosuwan, Ph.D student at Chulalongkorn, Thailand (visiting scholar at Department of Mathematical Sciences, Kent State University).
- 3) Mr. Xiaoqiang Wang, visiting scholar at Department of Mathematical Sciences, Kent State University.

3. Including a summary statement (1-2 sentences) of major outcome of research visit:

I tried to complete some papers and discussed some open problems with my supervisor. We are writing 4 papers which will be submitted very soon in the future.

4. Planned follow up activities and future implications (2-3 sentences)

We have scheduled to write some papers on quantum Maximum. Distance Separable codes (quantum MDS codes). So, in the future, I need a funding to research at Kent State University.

Date: February 23, 2018

Signature:

 Bac Nguyen Trong

Designation:

 Bac Nguyen Trong