

Dr. N.V. Joshi

December 4, 1984

Prof. Xavier J.R. Avula
Co-Chairman
Fifth International Conference on
Mathematical Modelling
Institute for Applied Sciences - Branch Office
P.O. Box 1488
Rolla, Missouri 65401
U.S.A.

Dear Professor Avula,

May I request you to consider the enclosed abstract, 'Evolution of Optimal Sex Ratios in Social Insects : Some Mathematical Models' by Dr. Raghavendra Gadagkar and myself for inclusion as a POSTER in the Fifth International Conference on Mathematical Modelling, to be held at University of California at Berkeley between July 29-31, 1985?

Perhaps the most important advances in the Life Sciences, in the last two decades have been in Evolutionary Biology (in addition to, of course, Molecular Biology). Mathematical Modelling has played a very crucial role in unravelling the subtle interactions between the myriad selection pressures with the natural populations are subjected to. From this point of view, we feel that Evolutionary Theory may form a very legitimate topic for a conference on Mathematical Modelling.

Due to the stochastic elements in the postal system, this letter may not reach you by the stipulated deadline of 15.12.84. If the delay is minor, could you please condone it and consider the abstract of the poster for scrutiny?

Looking forward to your reply.

Thanking you and with best regards,

Yours faithfully,

(N.V. Joshi)

Encl:

Dr.N.V.Joshi

April 26, 1985

Prof.Xavier J.R.Avula
P.O. Box 1488
Rolla, MO 65401
U.S.A.

Dear Professor Avula,

Thank you for your letter of March 12, informing me that the paper 'Evolution of Optimal Sex Ratios.....' by myself and Raghavendra Gadagkar has been accepted for presentation. It was very nice of you to go out of your way to consider a paper on Evolutionary Theory, a topic which was not explicitly mentioned in the topics of the symposium.

As indicated in your letter, I would pre-register at the earliest. I will also contact Berkely Dormitories for accommodation.

I am trying to make arrangements for obtaining travel grants from my Institution, as well as from several agencies of the (Government of India. The chances of obtaining such grants would be brighter if part of the finances is met by some other agency. May I request you to let me know if there is a possibility of my travel being partially supported by ICMM? It may also help if, instead of a travel grant, a waiver of Registration fees is granted.

The program of the fifth ICMM contains many topics which are of interest to me, and in particular, I would like to attend the special symposia on Morphogenesis of Patterns in Plants, and on Biological Growth. However, the circular does not mention the Registration Fees for these two, unlike that for the course on Mathematical Modelling in Pharmacokinetics. May I request you to let me know the details?

The first circular about ICMM mentioned poster sessions, and our abstract was sent for that. However, your letter indicates that it has been accepted for a presentation. Is it because there are no poster sessions? In that event, may I request you to consider the paper for a full length presentation

.....2

-2-

rather than for a short report?

Looking forward to hearing from you.

With best regards and best wishes,

Yours sincerely,

N V JOSHI

N.V.Joshi,
Scientific Officer,
C.T.S.

1st July, 1985.

The Divisional Chairman,
Division of Physics and
Mathematical Sciences,
Indian Institute of Science,
Bangalore-12.

Through: Chairman,
C.T.S.

[Handwritten Signature]
CHAIRMAN,
CENTRE FOR THEORETICAL STUDIES

Sub:- Request for funds towards payment of
Registration fees for a conference.

Sir,

A paper on 'The evolution of sex ratios' by myself
and Dr.Raghavendra Gadagkar has been accepted for
presentation at the Fifth International Conference on
Mathematical modelling to be held at the University of
California, Berkeley, USA between 29-31st July, 1985.
An exposure to the state-of-the-art and mathematical
modelling especially for biological systems, would be
very useful for my work as a mathematical programmer.

May I request you to sanction me an amount equivalent
to \$ 275.00 towards the conference registration fee? I
have requested the organisers for a waiver, and if that
is granted, I will return the amount sanctioned by the
Institute.

Please find enclosed copies of the acceptance letter
from the conference and the registration form describing
the fee schedule.

Thanking you and with kind regards,

Yours faithfully,

[Handwritten Signature]
N.V.Joshi

Encls:a/a

Returned w/c
the enclosed application form
filled-in and returned to this office for
further action at our end please.



[Handwritten Signature]
6-7-85

Fifth International Conference on Mathematical Modelling

29-31 July 1985
University of California, Berkeley
Berkeley, California U.S.A.

March 12, 1985

Dr. N. V. Joshi
Center for Theoretical Studies
Indian Institute of Science
Bangalore 560012
INDIA

Reply to:

Prof. Xavier J. R. Avula
P. O. Box 1488
Rolla, MO 65401 U.S.A.

Ph. (314)-341-4585 (office)
(314)-364-3581 (home)

Dear sir:

I am pleased to inform you that the following paper has been accepted for presentation at the Fifth International Conference on Mathematical Modelling which will be held at the University of California, Berkeley, July 29-31, 1985.

Evolution of Optimal Sex Ratios in Social Insects:
Some Mathematical Models

N. V. Joshi and Raghavendra Gadagkar
Indian Institute of Science, Bangalore

Overhead projectors and 35 mm slide projectors will be available for your use at the conference. The time allotted for full-length presentations is 20 minutes and for short reports is 10 minutes.

Conference registration form along with general information is enclosed for your use. Your early registration will help the organizing committee to plan the conference arrangements efficiently. Early registration is also less expensive to participants.

Off-campus (hotels) and on-campus (dormitory) lodging have been arranged for conference participants. Participants are responsible for making their own reservations and obtaining confirmation directly from the hotels/dormitory. Information on hotel and dormitory rates is included in general information.

If you are competing for the Best Paper Award please send me your manuscript by airmail/first class mail before April 30, 1985. Manuscripts postmarked later than April 30, 1985 shall not be considered for the award. The length of the manuscript is limited to 15 pages, typed single space, including figures, tables, and equations. Except for the limitation on length the style of presentation should conform to that of papers published in Mathematical Modelling -- Notes for Contributors a copy of which is enclosed.

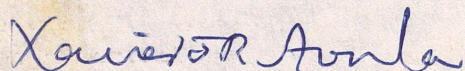
over

page 2
Fifth ICMM

If you wish to have your paper reviewed for possible publication in the journal Mathematical Modelling follow the instructions in the enclosed 'Notes for Contributors'. Papers submitted for the 'Best Paper Award' may be considered for publication in Mathematical Modelling (without retyping the manuscript) if you advise me to take such action.

If you have any questions please do not hesitate to call me, or write to me. I am looking forward to seeing you in Berkeley in July.

Yours sincerely,



Xavier J. R. Avula
Co-chairman, Fifth ICMM

Fifth International Conference on Mathematical Modelling

29-31 July 1985
University of California, Berkeley
Berkeley, California U.S.A.

CONFERENCE REGISTRATION FORM

Name- Last	First	Middle	<u>Fee Schedule</u>
Title			// \$200 before April 30, 1985
Affiliation			// \$230 May 1 - June 15, 1985
Address			// \$260 June 15 - July 15, 1985
City			// \$275 After July 15, 1985 and at the conference.
State			// \$30 Conference Banquet on July 30, 1985
ZIP			Make checks or drafts payable to 'Fifth ICMM'.
(Country)			All funds must be paid in U.S. Dollars.
Send Conference Registration Form to:			Foreign transactions must be done through a bank physically located in the U.S.A.
Fifth ICMM			
Institute for Applied Sciences			
31 Nantucket Lane			
St. Louis, Missouri 63132 USA			

TOTAL PAYMENT ENCLOSED: \$ _____

- - - - - tear along this line and mail to the above address - - - - -

Fill in and detach:

Application for Membership to
THE INTERNATIONAL ASSOCIATION FOR MATHEMATICAL MODELLING

NAME and TITLE _____ POSITION _____

AFFILIATION (Name and address of Institution) _____

DEGREES HELD (if applicable) _____

MAILING ADDRESS (if different from above) _____

Enclosed is a check in the amount of \$ _____ for membership. (Make check payable to IAMM)
(A pro-forma invoice will be sent upon request. Check here)

SIGNATURE _____ DATE _____

Send to: International Association for Mathematical Modelling c/o Prof. X.J.R. Avula
Engineering Mechanics
University of Missouri-Rolla
Rolla, Missouri 65401 U.S.A.

DUES

The membership fee for individual members is U.S. \$35.00 per year.

The fee for industrial and institutional membership is U.S. \$110.00 per year.

For the above fees, individual members are entitled to a copy of the journal, **MATHEMATICAL MODELLING, An International Journal** edited by Xavier J.R. Avula and Ervin Y. Rodin and published by Pergamon Press bimonthly. The Journal also carries with it the Association newsletter "Communications in Mathematical Modelling."



CENTER FOR THEORETICAL STUDIES
INDIAN INSTITUTE OF SCIENCE
BANGALORE-560 012

N.V. Joshi
Scientific Officer
C.T.S.

To,
The Chairman,
Center for Theoretical Studies:

N.V. Joshi

Sir,

To attend the fifth International Conference on Mathematical Modelling, to be held at ~~Berkeley~~ University of California, Berkeley, U.S.A., ~~Do~~ between 29-31 ~~August~~, July 1985, I am leaving Bangalore on 18th July 1985 (morning). I hope to be back by middle of August 1985.

Please find enclosed a copy of the letter from the registrar, I.I.Sc., permitting me to attend the conference. I have also enclosed an application for E.L. from 18-27 July. However, the time of one day each way for the travel, sanctioned by the Institute for being treated as on duty, looks a little too restrictive, and I would be grateful if the period for which I could be considered as 'on duty' is extended. If this is not possible, I will fill in the application for E.L. appropriately on my arrival.

Thanking you and with regards

Yours faithfully
Niranjan Joshi

18.7.1985

N. V. Joshi
Scientific Officer
C.T.S.

30.8.1985

To,

The Chairman,

Center for Theoretical Studies

Indian Institute of Science

Bangalore - 560012

Sir,

After having attended the International Conference on Mathematical Modelling at Berkeley, I am reporting for duty on the afternoon of Friday, 30 August 1985.

I left for B'gar on 17th July 1985 to proceed to U.S.A. from there on 20th July.

As I had indicated in my earlier letter, I will fill in the application for earned leave as per your advise.

Thank you.

Yours faithfully
N. V. Joshi

27th January, 1986.

Dr. Robin F.A. Mortiz,
Institute fuer Bienenkunde,
J.W. Goethe Universitaet,
Frankfurt/M
Karl-von-Frisch-weg 2,
637 Oberursel, West Germany.

Dear Dr. Moritz,

Thank you for sending me an invitation to present a talk on sex ratios and social behaviour in the symposium arranged by yourself, Dr. Crozier and Dr. Pamilo. I would certainly like to participate in the symposium.

However, Dr. Gadagkar has informed me that at the time of accepting this invitation itself, I should be very sure of obtaining a travel grant for attending the symposium. Unfortunately, I am not in a position to do so. The funding agencies in India normally take several months to process the applications for travel grant, and it is impossible to be sure of getting it.

Since the symposium is only in August, and since I have been sent an invitation to participate in the symposium, there is a good chance of my being able to obtain a travel grant. Unfortunately, it would take perhaps 3-4 months for my application to be processed and even then, to be honest, I cannot be sure of getting a favourable reply.

It is for this reason that I regret to inform you that I am unable to accept your invitation.

Thanking you and with best regards,

Sincerely Yours,

cc: Dr. R. Gadagkar

N.V. Joshi

Dr. N. V. Joshi

12th February, 1986.

Dr. Robin F. A. Moritz,
Institut for Bienenkunde
J. W. Goethe-Universitat,
Frankfurt/M
Karl-von-Frisch-Weg 2,
6370 Oberusel 1,
WEST GERMANY

Dear Dr. Moritz,

Thank you very much for your letter dated Feb. 6. I am extremely happy to accept your invitation to speak on 'Testing sex-ratio theory within social insects' in the symposium on 'Sociogenetics in Insects' organised by you and your colleagues.

As you had suggested, I will get in touch with the Indian Academy of Science (and also other similar bodies) for obtaining travel support. If there is a possibility of accommodation costs being covered by German organisation, the chances of obtaining funds here would indeed be much brighter.

I will write to Dr. Czoppelt to obtain the abstract submission forms, and will positively mail the abstract copies to him and yourself before 31st March.

It was very nice of you to have taken the trouble of talking to the President of IUSI. I will let you know as and when I hear about my travel grant.

Looking forward to hearing from you.

With regards and best wishes,

Sincerely Yours,

N. V. Joshi

Dr.N.V.Joshi

March 24, 1986

Th.Ch. Czoppelt
Congress Secretary
10th International Congress IUSSI
Max Planck Institut fur Biochemie
D-8033 Martinsried
West Germany

Dear Dr. Czoppelt,

Please find enclosed five copies of my abstract on
"Testing sex ratio theory within social insects".

This is in response to the invitation by Dr.R.F.A.
Moritz for participating in the Symposium on 'Sociogenetics
in Insects' organized by him, Dr.Crozier and Dr.Pamilo
at the 10th International Congress IUSSI.

Thanking you and with regards,

Yours sincerely,

N.V. Joshi

Dr. N.V. Joshi

March 24, 1986

Dr. Robin F.A. Moritz
Institut für Bienenkunde
J.W. Goethe-Universität
Frankfurt/M
Karl-Von-Frisch-Weg 2
6370 Oberusel 1
West Germany

Dear Dr. Moritz,

Please find enclosed an abstract "Testing Sex-ratio theory within social insects" for the Symposium on 'Sociogenetics in Insects'.

The three parts of the abstract deal with effects of life history characteristic, finite brood and finite population, and in a 15 minute talk, it would be better to emphasize one of these. May I request you to advise me in this matter? I would also be happy if you could comment on any other aspects.

Thanking you and with regards,

Yours faithfully,

N.V. Joshi

Dr. N.V. Joshi

26 March 1986

Dr. Zeh. Czoppelt
Congress Secretary
10th International Congress IUSSI
Max-Planck-Institut für Biochemie
D-8033, Martinsried
WEST GERMANY

Dear Dr. Czoppelt,

Please find enclosed five copies of my abstract
on "Kin Recognition, Polygamy and the Sex Ratio".

This is in response to the invitation by Dr. Dorothea
Brukner to participate in the workshop on Kin Recognition.

I hope you are in receipt of my registration form, mailed
on 24 March 1986, along with another abstract.

Thanking you and with regards,

Yours sincerely,

N.V. Joshi

encl: a.a.

Dr. N.V. Joshi

April 2, 1986

The Executive Secretary
Indian National Science Academy
Bahadur Shah Zafar Marg
New Delhi 110002

Dear Sir,

May I request you to send me the application forms to apply for travel grants to attend an International Conference?

I have been invited to give two talks at the 10th International Congress for the Study of Social Insects, and I am below 35 years in age. If this enables me to apply under any special category, please let me know the details.

Thanking you and with best regards,

Yours faithfully,

N.V. Joshi

DR.N.V.JOSHI

April 7, 1986

Prof.Dr.H.Rembold
President, International Union for the
Study of Social Insects
10th International Congress, IUSSI
Max-Planck Institute for Biochemie
D-8033 Martinsried
WEST GERMANY

Dear Prof.Dr.Rembold,

Thank you for your letter of February 7, 1986,
formally inviting me for the 10th International Congress
of IUSSI.

I had also received invitations from
Dr.F.R.A.Moritz (for the symposium on Sociogenetics) and
Dr.D.Bruckner (for the Workshop in Kin Recognition); and
I have mailed the abstracts of my talk.

Dr. Moritz has written to me on March 23,
suggesting that I could enquire with you the possibility
of obtaining partial financial support for me to attend
the Congress.

May I request you to let me know if the organisers
can provide some financial support towards my travel, or
accommodation or living expenses or registration fees?

I have written to the Indian National Science
Academy (as well as other national agencies) requesting
for funds to support my travel. The chances of
obtaining such a support would be much brighter if the
organiser of the congress provide for partial financial
support towards my accommodation, living expenses or
travel.

Apart from this letter, if request for partial financial support from the organisers has to be made in a specific format, may I request you to let me know?

With regards and best wishes,

Yours sincerely,

(N.V.JOSHI)

DR.N.V.JOSHI

July 2, 1986

Dr.Christian Czoppelt
Congress Secretary
10th International Congress IUSSI
Max-Planck-Institut fur Biochemie
D-8033 Martinsried
WEST GERMANY

Dear Dr. Czoppelt,

Thank you very much for your telegram of 30 June, offering me accommodation and living expenses for attending the IUSSI Congress. Trust you have received my telegram also. I was unable to obtain your telex numbers from any of the conference circulars, so I had to send only a telegram. Hope the delay has not inconvenienced you.

I have been unable to raise any funds, except for registration fees. With your telegram, the chances of obtaining funds are now much better, but the Indian National Science Academy requires me to apply at least three months in advance, and it is possible that for this reason they may not be able to sanction the money. Since your telegram indicated the possibility of funds for travel, may I request you to let me know if full travel support is possible? Though I am hopeful of obtaining some grant, in the absence of full travel support, it may not be possible for me to attend the Congress.

If it is indeed possible for you to grant me funds towards travel, is there any specific format in which I should apply? Would it be possible for you to send me a ticket directly?

Operationally, I feel that the most convenient procedure may be as follows: I will try a ticket for my journey from Bangalore to Munich and back. The money could be given to me at the Conference on producing the tickets.

Of course, any other procedure as per the rules of the Congress would also be acceptable to me.

Thanking you and with best regards,

Yours sincerely,

N.V.JOSHI

~~DEAR~~

DR. CHRISTIAN CZOPPELT, SECRETARY, IUSSE
MAXPLANCK INSTITUTE FUER BIOCHEMIE
~~D-8032~~ D-8033, MARTIN STRIED
WEST GERMANY

DEAR DR. CZOPPELT THANKS FOR YOUR TELEGRAM
OFFERING ACCOMODATION AND LIVING EXPENSES. MAY I
REQUEST FOR FULL TRAVEL ~~TRIP~~ GRANT ~~AS~~ ALSO?
LETTER FOLLOWS. BEST REGARDS

~~DR~~ N. V. JOSHI

2 July 1986

Dr.N.V.Joshi

July 17, 1986

Dr.Robin F. A. Moritz
Institut fur Bienenkunde
(Polytechnische Gesells Chaft)
J.W. Goethe Universitat Frankfurt/Main
Karl-von-Frisch-Weg 2
6370 Oberursel
F.R.G.

Dear Dr. Moritz,

Thank you for your letter of 7 July 1986, which reached here today. The program of the talks indeed looks quite interesting, and I am looking forward to the symposium.

I have received the forms for the proceedings volumes. Unfortunately, I have not been successful in obtaining travel funds. I received a telegram/telex from Dr. Croppelt, indicating that my accommodation and living costs would be taken care of by the organisers, and that if I need funds for travel, I should let him know. I have accordingly sent him a telegram (and also a letter on 2 July), requesting for travel support. I have not heard from him so far. If you could make some arrangements, it would indeed be helpful. The Bangalore-Munich return journey costs around Rs.10,000 (DM 1800-2000 on US \$ 900. If I am assured full travel support, then if necessary I can buy the ticket here, and the money could be given to me on arrival to Munich (or any time before the end of the conference).

However, any other procedure laid down by the organisers is of course acceptable to me.

As you had suggested, I will concentrate on the effects of finite brood size on optimal sex ratio in my talk. Do you think, it would be desirable to change the title of my talk to 'Optimal Sex Ratios under finite brood size?'

.....2

-2-

Thank you also for drawing my attention to the session on contributed papers on 'Genetics in Social Insects'.

Looking forward to your letter, and also to meeting you at the congress.

With regards and best wishes,

Yours sincerely,

N.V. JOSHI

~~640~~

1+1 letter head

+ airmail envelope

Dr. Robin ~~Moritz~~ F.A. Moritz

Institut für Bienenkunde

(Polytechnische Gesellschaft)

J. W. Goethe Universität Frankfurt/Main

Karl-von-Frisch-Weg 2

~~6370~~ 6370 Oberursel

F.R.G.

Dear Dr. Moritz,

Thank you for your letter of 7 July 86, which reached here today. The program of the talks indeed looks quite interesting, and I am looking forward to the symposium.

I have received the forms for the proceedings volumes.

Unfortunately, I have not been successful in obtaining travel funds. I received a telegram/telex from Dr. Czoppelt, indicating that my accommodation and living costs would be taken care of by the organisers, and that if I need funds for travel, I should let him know. I have accordingly sent him a telegram (and also a letter ^{on 2 July}), requesting for travel support. I have not heard from him so far. If you could make some arrangements, it would indeed be helpful. The B'loc - Munich return journey costs around Rs. 10,000/- (DM 1800-2000) ^{on US\$ 900}. If I am assured full travel support, then if necessary I can buy the ticket here, and the money could be given to me on arrival to Munich (or ~~before~~ ^{before} any time before the end of the conference). ~~Of course,~~

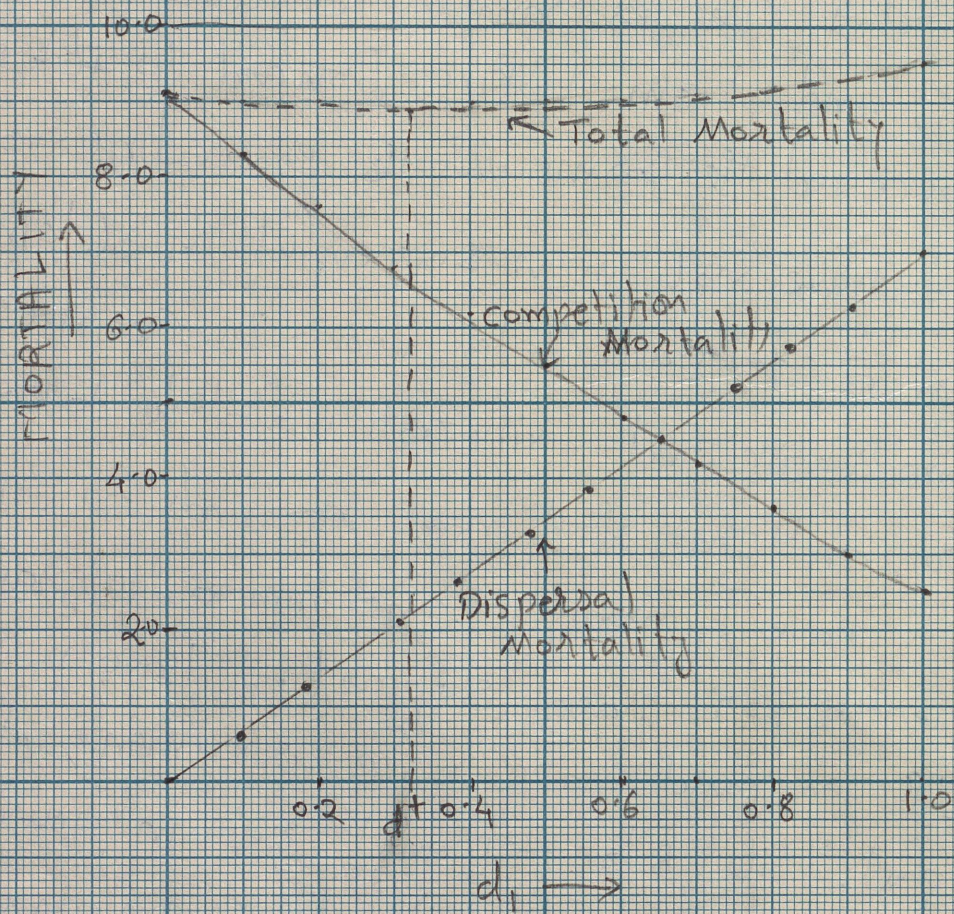


Fig 4

~~If the organisers have a sp any other~~
If the regulations of the Congress follow
~~some~~ However, any other procedure laid
down by the organisers is of course acceptable
to me.

As you had ^{suggested} ~~indicated~~, I will concentrate
on the effects of finite brood size on optimal
sex ratio in my talk. Do you think it would
be desirable to change the title of my talk to
"~~Finite~~ Optimal ~~brood size~~ in sex ratios
under finite brood size"?

Thank you also for drawing my attention
to the session on contributed papers on "genetics
in social insects".

Look forward to your letter, and also to
meeting you at the congress,

With regards & best wishes

yours faithfully

N.V. Joshi

CENTRE FOR ECOLOGICAL SCIENCES
Indian Institute of Science

Prof. Madhav Gadgil
Chairman

To: The Chairman
Computer Centre
IISc.

Dear Sir,

Sub:-ISSUE OF STORE DEMAND NOTE

May I request you to issue Store Demand Note for
procuring CES quota of IBM full faced computer cards
for the month of

Yours sincerely,

Madhav Gadgil

DR.N.V.JOSHI

July 28, 1986

Dr.Robin F.A. Moritz
Institut fur Bienenkunde
(Polytechnische Gesells Chaft)
J.W. Goethe Universitat Frankfurt/Main
Karl-Von-Frisch-Weg 2
6370 Oberursel
F.R.G.

Dear Dr.Moritz,

I am sure you would have received my letter of July 17th, 1986.

On 24th July, I received a telegram from Dr.Czoppelt indicating that travel support for my up and down ticket is possible. In fact, he has said that my ticket has been deposited at the AIR INDIA office.

May I thank you for all the help and encouragement you have provided for me to be able to attend the Congress!

Looking forward to meeting you at the Congress.

With best regards,

Yours sincerely,

N.V.JOSHI

Dr. Robin F.A. Moritz -
 Institut für Bienenkunde
 (Polytechnische Gesellschaft)
 J. W. Goethe Universität Frankfurt/Main
 Karl-von-Frisch-Weg 2
~~6370~~ 6370 Oberursel
 F.R.G.

Dear Dr. Moritz,

I'm sure you would have received my letter of
 July 17.

On 24 July, I received a telegram from Dr.
 Czoppelt ^{indicating} that travel support for my up and down journey
 is possible. In fact, he ~~had~~ has said that my ticket
 has been deposited at the AIR-INDIA office.

May I thank you for all the help and encouragement
 you have provided for me to be able to attend the Congress?
 Looking forward to meeting you at the Congress

with best regards

Yours faithfully

(N.V. Joshi)

DR.N.V.JOSHI

July 28, 1986

The Sales Manager
AIR INDIA

Delhi

Dear Sir,

I have to attend an International Conference
(10th International Congress of the International Union
for the Study of Social Insects) in Munich, West Germany.

I have received a telegram from Dr.Ch.Czoppelt,
Organising Secretary of the Congress (copy enclosed)
that he has deposited my ticket for the journey with
your office.

(AI 155 Delhi-Frankfurt 17.8.86 of Luftansa from Frankfurt
to Munich ^{LH968}

^{LH757} Luftansa from Munich to Frankfurt on 23.8.86 and AI 130
AI 130 from Frankfurt to Delhi).

Since it is essential that I produce the ticket to obtain
my visa, may I request you to forward the ticket to your
Bangalore Office, so that I could collect it from them?

I would be much obliged if you do the needful at your
earliest convenience.

Thanking you and with regards,

Yours sincerely,

Niranjan Joshi
N.V.JOSHI

DR.N.V.JOSHI

July 28, 1986

The Sales Manager
AIR INDIA
Unity Building
Bangalore

Dear Sir,

I have to attend an International Conference (10th International Congress of the International Union for the Study of Social Insects) in Munich, West Germany between 18-23 August 1986.

I received a telegram from the organising secretary of the congress, Dr.Ch.Czoppelt that he has deposited my ticket for the up and down journey

(AI 155 Delhi-Frankfurt on 17.8.86 and Luftansa from Frankfurt to Munich,

Luftansa from Munich to Frankfurt on 23.8.86 and A.I. from Frankfurt to Delhi) at the Delhi Office of AIR INDIA (Copy enclosed).

Since it is essential that I produce the ticket to obtain the visa, I have requested your Delhi Office to send the ticket to you (copy enclosed), so that I can collect it from your office.

I will be much obliged if you take the necessary follow-up action.

Thanking you and with regards,

Yours faithfully,

N.V.JOSHI

1+2 + envelope

To,

The Sales Manager

AIR INDIA

Unity Building,
Bangalore

Dr. N. V. Joshi
Center for Theoretical Studies
Indian Institute of Science
Bangalore - 560012
Tel. 364411
Ext 266 & 268.

Dear Sir,

I have to attend an International Conference
(~~to the~~ 10th International congress of the International Union for the
Study of Social Insects) in ~~Ammer~~ Munich, west Germany
between ~~22~~ 18-23 August 1986.

I received a telegram from the Organising Secretary
of the congress, Dr. Ch. Czoppelt ~~to~~ that he has deposited my
ticket for the up and down journey
(AE 155 Delhi — Frankfurt on 17.8.86 & Lufansa ^{from} Frankfurt to
Munich, ^{from} Lufansa from Munich to Frankfurt on 23.8.86 & A.I ^{from} Frankfurt
Frankfurt to Delhi) at the ~~Delhi~~ Delhi office & AIR INDIA.
(copy enclosed)

Since it is essential that I produce the ticket to
obtain the visa, I have requested your Delhi office to send
the ticket to you (copy enclosed), so that I can collect it
from your office.

I will be much obliged if you take the necessary follow-up
action.

Thank you and with regards

Yours faithfully
N.V. Joshi

To,

~~the~~

The Chairman,

Center for Theoretical Studies

I. I. Sc.

Sir,

I have been invited to attend the 10th International
Congress of the International Union for the Study of Social
Insects (18-22 August, 1986)
to give a talk, to present a poster and to
participate in a workshop. The organisers have agreed
to take care of

1+2 + envelope

To,

The Sales Manager

AIR INDIA

Delhi -

Dr. N. V. Joshi

Center for Theoretical Studies

Indian Institute of Science

Bangalore - 560012

Tel. 364411

Ext 266 & 268

Dear Sir,

I have to attend an International Conference
(10th International Congress of the International Union for
the Study of Social Insects) in Munich, West Germany

I have received a telegram from Dr. Ch. Czoppelt,
organising secretary of the congress (copy enclosed) that
he has deposited my ticket for the journey with your
office.

(AI 155 Delhi-Frankfurt 17.8.86 & Luftansa from
Frankfurt to Munich

Luftansa from Munich to Frankfurt on 23.8.86 and
AI from Frankfurt to Delhi).

Since ~~the~~ it is essential that I produce the ticket
to obtain my visa, may I request you to forward
the ticket to your Bangalore office, so that I could
collect it from them?

I would be much obliged if you do the needful at
your earliest convenience.

Thank you & with regards

Yours faithfully
N.V. Joshi.

DR.N.V.JOSHI

July 28, 1986

Prof.Dr.H.Rembold
President
International Union for the
Study of Social Insects
C/o Max-Planck-Institute fur Biochemie
D-8033 Martin Sried
WEST GERMANY

Dear Professor Rembold,

In response to my letter to you (dated April 7, 1986) requesting you for financial support towards attending the 10th International Congress of IUSSI, I have received communications from Dr.Ch.Czoppelt indicating that financial support for travel as well as stay during the Conference has been provided.

May I thank you for all these arrangements!

With best regards,

Yours sincerely,

N.V.JOSHI

To

1+2 + address on airmail.

Prof. Dr. H. Rembold,

President, International Union for the Study of Social Insects

~~B~~ c/o Man-Plant-Institute für Biochemie

D-8033 Martinsried / ~~West Germany~~

West Germany

Dear Prof. Rembold,

In response to my letter to you (dated April 7, 1986) requesting you for financial support towards attending the 10th International Congress of IUSSI, ~~I~~ I have received communications from Dr. Ch. Czoppelt ~~that~~ indicating that financial support for ~~my~~ stay travel as well as stay during the conference has been provided.

~~Thanks~~ May I thank you for all these arrangements.

~~With~~ ~~best~~ ~~regards~~
With best regards

Yours faithfully

N.V. Joshi

DR.N.V.JOSHI

July 28, 1986

Dr. Christian Czoppelt
Congress Secretary
10th International Congress, IUSSI
Max Plank Institute fur Biochemie
D-8033, Martinsried
WEST GERMAN

Dear Dr. Czoppelt,

Thank you very much for your telegram of 24 July. Trust you have received my telex, acknowledging the same.

I am getting in touch with the AIR INDIA, Delhi office to collect the tickets which you have deposited there, as these are necessary for me to obtain the visa.

The travel arrangements (the dates and timings) are very convenient. I will contact the IUSSI information desk at the Munich airport on arrival.

I would like to thank you once again for all the help.

Looking forward to meeting you at the congress.

With best regards,

Yours sincerely,

N.V.JOSHI

Dr. Christian Czoppelt
Congress Secretary
10th International Congress, IUSSTI
Max Planck Institut für Biochemie
D-8033 Martinsried
West German,

1+1 letterhead
& envelope.

Dear Dr. Czoppelt,

Thank you very much for your telegram of 24 July.
I trust you have received my telegram, acknowledging the
same.

I ~~am~~ am getting in touch with the AIR India
Delhi Office to collect ~~my~~ the tickets which you have
deposited there, as these are necessary for me to obtain
the visa.

The travel arrangements ~~are~~ (the dates and timings) are
very convenient. I will contact the IUSSTI information desk
at the Munich airport on arrival.

~~My~~ I would like to thank you once again
for all the help.

Looking forward to meeting you at the congress,
with best regards

Yours faithfully

N.V. Joshi



CENTER FOR THEORETICAL STUDIES
INDIAN INSTITUTE OF SCIENCE
BANGALORE-560 012

DR.N.V.JOSHI

July 29, 1986

The Chairman
Division of Physical and Mathematical Sciences
Indian Institute of Science
Bangalore - 560012

Sub : Financial Support towards Registration Fees

Sir,

I have been invited to attend the 10th International Congress of the International Union for the Study of Social Insects, to be held at Munich, West Germany, between 18-22 August, 1986. I have to give a talk on 'Sex Ratio Theory' and present a poster on 'Kin Recognition'.

The organizers have agreed to take care of my lodging and boarding during the conference. They have also agreed to provide travel support for me between India and Germany, both ways.

May I request you to provide me financial support towards the registration fees? The amount needed is DM 200 only, which is between Rs.1100 - Rs 1200, and I am unable to obtain foreign exchange equivalent to that amount.

For the record, I must mention that I was given a grant of Rs. 3000/- by your office last year, to attend the International Symposium on Mathematical Modelling, held at Berkley, U. S. A. between 29-31 July, 1985.

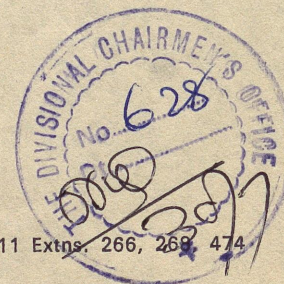
Thanking you and with regards,

Yours faithfully,

Niranjan Joshi
(N. V. Joshi)
Scientific Officer

- Encl: Copies of
1. Invitation
 2. Letter about oral presentation
 3. Letter about poster presentation
 4. ~~copy of~~ The registration form
 5. } Abstracts
 6. }
 7. } Telegrams indicating travel
 8. } support & local hospitality.

[Signature]
CHAIRMAN,
CENTRE FOR THEORETICAL STUDIES



28 July 1986

To,

The Chairman

Center for Theoretical Studies

Indian Institute of Science

Sir,

I have been invited to attend the 10th International Congress of the International Union for the study of Social Insects, to be held at Munich, (F.R.G) between 18-22 August, 1986. I have to give a talk on 'Sex Ratio Theory' and present a poster on 'Kin Recognition'.

The organisers have agreed to take care of my lodging and boarding arrangements during the period of the ~~conference~~ congress. They have also agreed to provide me travel support from Delhi to Munich, both ways.

May I request you to provide me financial support towards the registration fees (~~DM 200/-~~ DM 200=00) and also towards air fare between Delhi and Bangalore?

Thanking you and with regards

Yours faithfully
Niranjan Joshi
(N.V. Joshi)
Scientific Officer.

Dr.N.V.Joshi

August 5, 1986

Dr. Ch. Czoppelt
Congress Secretary
10 International Congress, IUSSI
Max Plank Institute fur Biochemie
D-8033 Martinsried
West Germany

Dear Dr. Czoppelt,

Thank you for your telex of 31 July. Trust you have received my telex of 5 August.

I have paid for my ticket between Delhi and Munich (and return). I had requested you to confirm the travel support (in my telex of 5 August) only because a confirmation was needed by our Institute. Since the Institute is paying for my registration fees as well as for my travel between Bangalore and Delhi, and since the ticket to travel to Munich was bought by me on my own, they wanted the travel support from the organisers to be confirmed. I hope you did not mind that.

Thanking you once again, and looking forward to meeting you at the Congress.

With best regards,

Yours sincerely,

N.V.JOSHI

13 August 1986

Telex

To:
DR. CH. CZOPPELT
CONGRESSSECRETARY
MAX PLANCK INSTITUTE FUR BIOCHEMIE
D-8033 MARTINSRIED
F.R.G.

TELEX NO. 521740 MPIB D

DEAR DR. CZOPPELT,

THANKS FOR YOUR TELEX AUGUST 12. EXACT PRICE OF
RETURN TICKET BETWEEN DELHI-MUNICH IS RUPEES SEVENTEEN
THOUSAND ONE HUNDRED TWENTY EIGHT (17,128). I HAVE
PURCHASED TICKET AND OBTAINED VISA AND LEAVING BANGALORE
FIFTEENTH AUGUST. PLEASE TELEX IMMEDIATELY IF QUANTUM
OF TRAVEL SUPPORT IS ALTERED. BEST REGARDS.

- N.V. JOSHI -

Sender:

Dr. N.V. Joshi
CTS, IISc, Bangalore 12, India

1+1 letterhead
+ envelope.

To,

The ~~Consul~~ ~~Consul~~ Consul,
German Consulate

Mico House

C-in-C Road

Madras - 600006

Sir,

May I request you to send me the ~~forms~~
relevant forms to enable me to apply for a visa?

I have been invited to the 10th International
Congress of the International Union for the Study of Social
Insects, to be held at Memmingen (Max Planck Institute
~~for~~ für Biochemie, Martinsried) between 18-22 August 1986,
and I would like to apply for a visa to F.R.G. to
attend the same.

Thank you and with regards

N.V. Joshi.

DR. CH. CZOPPELT

CONGRESS SECRETARY

MAX PLANCK INSTITUTE FOR BIOCHEMIE
D-8033 MARTINSAIED FRG

TELEX ~~57~~ 521740 MPIB D

DEAR DR. CZOPPELT

THANKS FOR YOUR TELEX AUG. 12

EXACT PRICE OF RETURN TICKET

BETWEEN DELHI - MUNICH IS

RS 17128 ONLY RUPES SEVENTEEN

THOUSAND ONE HUNDRED TWENTY EIGHT ^{ONLY.} ~~ONLY~~

I HAVE PURCHASED TICKET AND OBTAINED
~~BEST RE~~

VISA AND LEAVING BANGALORE 15 AUGUST.

PLEASE ~~TE~~ TELEX IMMEDIATELY ~~IF~~

IF ~~EXTENT OF FINANCIA~~ QUANTUM

OF TRAVEL SUPPORT IS ALTERED

BEST REGARDS,

N. V. JOSHI

DEAR DR. CZOPPELT

~~REFER TO YOUR TELEX OF JULY 31. I
WILL PAY FOR RETURN TICKET IN RUPEES. PLEASE
REQUEST CLARIFICATION WHETHER TRAVEL SU~~

REFER TO YOUR TELEX OF JULY 31. I
~~REQUEST CLAR~~ WILL PAY FOR ~~RE~~ THE
TICKET IN RUPEES. REQUESTING CLARIFICATION
1. SHOULD I PAY ONLY FOR RETURN TICKET OR FOR
BOTH WAYS TRAVEL. 2. ~~WILL THE~~ ~~THE~~ WILL THE
TRAVEL SUPPORT FROM THE CONFERENCE BE BOTH
WAYS AS MENTIONED IN TELEX OF 24 JULY
OR ONLY ONE WAY.

JP61.FPR

PAGE 1

0.100000000000000000D-02, 0.400000000000000000D+01,
0.500000000000000000D+00,

0	0.169034D+00				
0	0.183634D+00				
1	0.814825D+00	0.814825D+00	0	0	0
1	0.260052D-01				
1	0.262334D-01				
0	0.918953D-01	0.918953D-01	0	0	0
2	0.400080D-02				
2	0.374762D-02				
1	0.108715D-01	0.108715D-01	0	0	0
3	0.615508D-03				
3	0.535375D-03				
2	0.134141D-02	0.134141D-02	0	0	0
4	0.946935D-04				
4	0.764821D-04				
3	0.171509D-03	0.171509D-03	0	0	0
4	0.145682D-04				
4	0.109260D-04				
3	0.225805D-04	0.225805D-04	0	0	0
0	0.100000000000000000D-02,	0.400000000000000000D+01,			
0	0.500000000000000000D+00,				

DEAR DR CZOPPELT

THANKS FOR YOUR TELEX OF 31 JULY. I HAVE
PAID FOR MY TICKET FROM DELHI TO MUNICH AND
BACK. PLEASE CONFIRM ~~TRAVEL FUND~~ TRAVEL SUPPORT
MENTIONED IN YOUR TELEX OF 24 JULY. ~~AS~~ ~~THIS~~
~~IS NECESSARY BECAUSE I~~ WILL BE GIVEN TO ME AT
THE CONGRESS. WITH BEST REGARDS

N. V. JOSHI |

CENTRE FOR ECOLOGICAL SCIENCES
Indian Institute of Science

Prof. Madhav Gadgil
Chairman

To: The Chairman
Computer Centre
IISc.

Dear Sir,

Sub:-ISSUE OF STORE DEMAND NOTE

May I request you to issue Store Demand Note for
procuring CES quota of IBM full faced computer cards
for the month of

Yours sincerely,

Madhav Gadgil

V#####RT

GX MS 05.08 14:46

#

8458349 IISC IN

GA

41521740+

521740 MPIB D — Telex

8458349 IISC IN

MSG TO DR CH CZOPPELT
SECRETARY IUSSI CONGRESS
MAX PLANK INSTITUTE FOR BIOTECHNIE
MARTINSRIED WEST GERMANY

THANKS FOR YOUR TLX OF 31ST JULY(.) I HAVE PAID
FOR MY TICKET FROM DELHU+ DELHI TO MUNICH AND BACK(.) PLEASE
CONFIRM FULL TRAVEL SUPPORT MENTIONED IN YOUR TELEX OF
24TH JULY AND THAT MONEY WILDO+ WILLBE GIVEN TO ME DURING THE
CONGRESS(.) CONFIRMATION NECESSARY DUE TO INSTITUTE
REGULATIONS.

REGARDS/N V JOSHI, CTS, IISC, BANGALORE, INDIA#

521740 MPIB D

8458349 IISC INMMMMMM

02.4 MIN



USE A SEPARATE APPLICATION FOR EACH CURRENCY ISSUED

CUR- RENCY	(X)
US\$	X
CAN\$	
£	
SF	
DM	
¥	

QUANTITY	DENOMINATION	AMOUNT	CHEQUES NUMBERED						
			SERIES	FROM			TO INCL.		
5	100	500	RC	051	091	590	594		
1	20	20	EH	11	187	319	-		
FACE VALUE IN CURRENCY ISSUED		\$ 520	C.F.S.				DAY	MONTH	YEAR
		CHARGE 1%					13	7	85

IMPORTANT REMINDERS

- Sign each Cheque **immediately** (in upper left corner). You are not protected in case of loss or theft until you do so. Never countersign a Cheque until you are ready to use it.
- When using a Cheque, countersign (in lower left corner) only when person accepting is **watching**. While your countersignature is all that American Express Company requires, the procedures of some acceptors may call for additional identification.
- Carry this Record of Purchase **separately** from your Cheques. Having this record will help expedite your refund if your Cheques are lost or stolen.

MORE HELPFUL HINTS

- Handle and safeguard your Cheques as you would your cash. Keep your Cheques with you or in a safe place at **all times**. An inside breast pocket of your coat or jacket or a zippered compartment of your handbag is most secure. Never leave your Cheques in your hotel room, luggage or car.

EXCHANGE CONTROL

ALTHOUGH AMERICAN EXPRESS TRAVELERS CHEQUES ARE VALID WITHOUT TIME LIMIT, RESIDENTS OF COUNTRIES IN WHICH EXCHANGE CONTROL RESTRICTIONS ARE IN FORCE ARE WARNED THAT THEY MAY BE REQUIRED TO SURRENDER UNUSED CHEQUES AND OTHER FOREIGN EXCHANGE FACILITIES IMMEDIATELY UPON THEIR RETURN HOME AND THAT THEY SHOULD ACQUAINT THEMSELVES WITH THEIR LEGAL OBLIGATIONS IN THIS RESPECT.

HOW
YOU CAN
GET A
REFUND
FOR
AMERICAN
EXPRESS
TRAVELERS
CHEQUES

**IN THE MAINLAND UNITED STATES
AND CANADA**

All you have to do is call American Express Travelers Cheques from the nearest telephone to arrange for a FULL refund.

At any time call: **800-221-7282 toll free**
in the mainland United States
212-248-4584 collect
in New York State & Canada

On business days, we'll direct you to the nearest full refund location where you can get your new Travelers Cheques.

On weekends, holidays and at night, we can still help. We'll direct you to a nearby **Holiday Inn** to pick up an Emergency RefundSM of up to \$100 to tide you over until the next business day when you can get the remainder of your refund.

**OUTSIDE THE MAINLAND
UNITED STATES AND CANADA**

On business days, you can get a FULL refund by going to the nearest office of American Express Company, and its subsidiaries or representatives . . . located around the world.

If you are in Europe, Africa or the Middle East, you can also contact: American Express Travelers Cheque Refund Centre, Brighton, England. Telex: 877322 U.K. Cables: Refundamex, Brighton, U.K. or telephone: Brighton 688363 (STD Code 0273).

On weekends and holidays, in key travel areas throughout the world, you can get an Emergency Refund. Contact **Avis Rent a Car** for the address of its nearest office where you can get up to \$100 to tide you over until the next business day.



PURCHASER'S COPY NO. 2

DETACH AND CARRY SEPARATELY FROM CHEQUES

PURCHASE AGREEMENT

IMPORTANT:

Read this Agreement carefully. By either buying, signing, accepting or using these American Express Travelers Cheques, you agree to everything written here.

REFUND:

American Express Company ("Amexco") will replace or refund the amount shown on any lost or stolen Travelers Cheque only if you meet **all** of the requirements below:

BEFORE LOSS

- You **have signed** the Travelers Cheque in the upper left corner in permanent ink.
- You **have not signed** the Travelers Cheque in the lower left corner.
- You **have not given** the Travelers Cheque to another person or company to hold or to keep, or as part of a confidence game.
- You **have not used** the Travelers Cheque in violation of any law, including as part of an illegal bet, game of chance or other prohibited action.
- Your Travelers Cheque **has not been taken** by court order or by government action.

AFTER LOSS

- You **immediately notify** Amexco of the loss or theft of the Travelers Cheque.
- You **report** all facts of the loss or theft to Amexco and also to the police if Amexco asks you to.
- You **inform** Amexco of the serial number of the lost or stolen Travelers Cheque and the place and date of its purchase.
- You **complete** Amexco's refund forms and **provide** Amexco with acceptable proof of your identity.
- You **give** Amexco all reasonable information and help requested to make a complete investigation of the loss or theft.

NO STOP PAYMENT:

Amexco cannot stop payment on or refuse to pay any Travelers Cheque.

SIGN YOUR CHEQUES IMMEDIATELY
In the Upper Left Corner

Dr.N.V.Joshi

December 12, 1986

Prof.Ashok Kolaskar
Professor of Biotechnology
Dept. of Zoology
University of Poona
Ganesh Khind Road
PUNE 411007

My dear Ashok,

This is to enquire about the Protein and DNA sequence data. I have two magnetic tapes (2400 ft.) and I can send them to you by courier service. Would it be possible for you to send it with protein sequence and DNA sequence data? Roughly how long would it take? How would you send the tapes? Since this is official CES/CTS work (I have talked to Prof.Madhav and also Prof.Sharat Chandra) there is no problem about paying any charges. May I request you to let me know at your earliest convenience?

I am also looking forward to your letter giving me more details about the Centre which you discussed with me during your Bangalore trip.

With regards to all,

Yours sincerely,

(N.V.Joshi)

Dr.N.V.Joshi

12 Jan 1987

To

Dr.S. Mathavan

School of Biological Sciences

Madurai Kamraj University

Madurai - 625 021

Dear Dr. Mathavan,

Thank you for your letter of 23 Dec 1986 , and also for inviting me to participate in the UGC workshop which you are organizing. Unfortunately , this time also I am unable to come to Madurai. I have been invited to visit the Smithsonian Tropical Research Institute in Panama between 1-28 Feb. 1987 , and the dates unfortunately clash with your program.

I hope that sometime in future at least I will be able to visit Madurai , for your next workshop.

Thank you once again for the invitation.

With best regards,

Yours faithfully

(N.V. Joshi)

From : Dr. N. V. Joshi

Centre for Ecological Sciences

Indian Institute of Science

Bangalore - 560012

INDIA

To : Prof. Robert Axelrod

Institute of Public Policy Studies

440 Lorch Hall

University of Michigan

Ann Arbor , MI 48109-1220

U. S. A.

Dear Prof. Axelrod ,

I agree to let you cite my unpublished work entitled
" The Evolution of Cooperation in N-Person Games "
in your review of recent work on the evolution of
cooperation.

Sincerely ,

N.V. Joshi

23-March-1988

From : Dr. N. V. Joshi

Centre for Ecological Sciences

Indian Institute of Science

Bangalore - 560012

INDIA

To : Prof. Robert Axelrod

Institute of Public Policy Studies

440 Lorch Hall

University of Michigan

Ann Arbour , MI 48109-1220

U. S. A.

Dear Prof. Axelrod ,

I agree to let you cite my published work entitled

" The Evolution of Cooperation by Reciprocation within
Structured Demes "

published in the Journal of Genetics , vol. 66 , pages

69-84 , year of publication 1987

in your review of recent work on the evolution of
cooperation.

Sincerely ,

N.V. Joshi

23-March-1988

To,

The Chairman,

Division of Physics and Mathematical Sciences

Indian Institute of Science

Bangalore

~~Re:~~ Sub: Grant for attending a conference

Ref:

Sir,

You ~~were kind~~ had kindly sanctioned a grant of Rs. 3000=00 towards my attending the Fifth International Conference on Mathematical Modelling, held at ~~Berkeley~~, the University of Berkeley, California, U.S.A. between 29-31 July 1985.

After having attended the conference, I resumed duty on 30 August 1985. However, I have not yet received the sanctioned sum of Rs. 3000=00.

May I request you to do the needful in this regard.

Thank you and with regards
Yours faithfully
N. V. Joshi.