COVER SHEET FOR PROPOSAL TO THE NATIONAL SCIENCE FOUNDATION

PROGRAM ANNOUNCEMENT/SOLICITATION NO./CLOSING DATE/if not in response				ot in response to a pro	ogram announcement/solicit	tation enter NSF 99-2	F	DR NSF USE ONLY	
NSF 98-27 11/02/99							NSF P	ROPOSAL NUMBER	
FOR CONSIDERATION	BY NSF ORGANIZATI	ON UNIT(S	(Indicate the m	nost specific unit know	n, i.e. program, division, etc	c.)		74665	
FOR CONSIDERATION BY NSF ORGANIZATION UNIT(S) (Indicate the most specific unit known, i.e. program, division, etc.) DIRECT FOR COMPUTER & INFO SCIE & ENGINE 9971665									
DATE RECEIVED NUMBER OF COPIES DIVISION AS			ASSIGNED	FUND CODE	DUNS# (Data Ur	niversal Numbering System)	FILE LOCATION		
						06925249	02		
TAXPAYER IDENTIFICATION NUMBER (TIN)			A RENEWAL	JS AWARD NO.		IS THIS PROPOSAL BEING SUBMITTED TO ANOTHER FEDE AGENCY? YES ⊠ NO □ IF YES, LIST ACRONYMS(S)			
060646959					SHMENT-BASED RENEWAL ONR				
NAME OF ORGANIZATI	ON TO WHICH AWAR	D SHOULD	D BE MADE		ADDRESS OF AWARDEE ORGANIZATION, INCLUDING 9 DIGIT ZIP CODE				
Wesleyan University	/				South College – 269 High Street				
AWARDEE ORGANIZAT	FION CODE (IF KNOWN)				Middletown, CT. 064590290				
0014241000									
NAME OF PERFORMING ORGANIZATION, IF DIFFERENT FROM ABOVE			VE ADDRES	ADDRESS OF PERFORMING ORGANIZATION, IF DIFFERENT, INCLUDING 9 DIGIT ZIP CODE					
PERFORMING ORGANIZATION CODE (IF KNOWN)									
IS AWARDEE ORGANIZ (See GPG II.D.1 For Def			FIT ORGANIZA				ESS 🗌 WOMAN-OW	NED BUSINESS	
TITLE OF PROPOSED F	,								
	Dichard	inte ope	cincutions		i e De (enspinen	•			
REQUESTED AMOUNT PROPOSED DURATION (1-6) \$ 2,500,000 60 months			(1-60 MONTHS)			SHOW RELATED P IF APPLICABLE	SHOW RELATED PREPROPOSAL NO., IF APPLICABLE		
CHECK APPROPRIATE	BOX(ES) IF THIS PRO	POSAL IN	ICLUDES ANY	OF THE ITEMS					
□ BEGINNING INVEST □ DISCLOSURE OF LC			n.		VERTEBRATE ANIMALS (GPG II.D.12) IACUC App. Date				
			,		HUMAN SUBJECTS (GPG II.D.12) Exemption Subsection or IRB App. Date				
			,						
☐ HISTORIC PLACES	(GPG II.D.10)								
□ SMALL GRANT FOR EXPLOR. RESEARCH (SGER) (GPG II.D.12)					ABILITIES (GPG V.G.)				
GROUP PROPOSAL	(GPG II.D.12)					PORTUNITY AWAI	RD (GPG V.H)		
Department of N	Aathematics		Dept. o	tal address f Mathemat	ics				
Wesleyan Un									
Nildaletow									
		High D	United StatesDegreeYr of Degree		Telephone Numb	Telephone Number		ail Address	
PI/PD NAME									
James B Lipton		Ph.D.	Ph.D. 199		860-685-218	860-685-2188 lipton@wesleyan.edu			
CO-PI/PD									
Daniel J Dougherty		Ph.D. 1		1982					
CO-PI/PD									
CO-PI/PD									
CO-PI/PD CO-PI/PD									

NSF Form 1207 (10/98)

CERTIFICATION PAGE

Certification for Principal Investigators and Co-Principal Investigators:

I certify to the best of my knowledge that:

(1) the statements herein (excluding scientific hypotheses and scientific opinions) are true and complete, and
(2) the text and graphics herein as well as any accompanying publications or other documents, unless otherwise indicated, are the original work of the
signatories or individuals working under their supervision. I agree to accept responsibility for the scientific conduct of the project and to provide the
required progress reports if an award is made as a result of this application.

I understand that the willful provision of false information or concealing a material fact in this proposal or any other communication submitted to NSF is a criminal offense (U.S.Code, Title 18, Section 1001).

Name (Typed)	Signature	Social Security No.*	Date
PI/PD		Ö a S	
James B Lipton		SSN and ON F	
Co-PI/PD		ar AS	
Daniel J Dougherty		are re n TLA	
Co-PI/PD		con ot (
		nfi dis SU	
Co-PI/PD		der pla	
		aye aria	
Co-PI/PD			
		NS.	

Certification for Authorized Organizational Representative or Individual Applicant:

By signing and submitting this proposal, the individual applicant or the authorized official of the applicant institution is: (1) certifying that statements made herein are true and complete to the best of his/her knowledge; and (2) agreeing to accept the obligation to comply with NSF award terms and conditions if an award is made as a result of this application. Further, the applicant is hereby providing certifications regarding Federal debt status, debarment and suspension, drug-free workplace, and lobbying activities (see below), as set forth in Grant Proposal Guide (GPG), NSF 99-2. Wilflul provision of false information in this application and its supporting documents or in reports required under an ensuring award is a criminal offense (U. S. Code, Title 18, Section 1001).

In addition, if the applicant institution employs more than fifty persons, the authorized official of the applicant institution is certifying that the institution has implemented a written and enforced conflict of interest policy that is consistent with the provisions of Grant Policy Manual Section 510; that to the best of his/her knowledge, all financial disclosures required by that conflict of interest policy have been made; and that all identified conflicts of interest will have been satisfactorily managed, reduced or eliminated prior to the institution's expenditure of any funds under the award, in accordance with the institution's conflict of interest policy. Conflict which cannot be satisfactorily managed, reduced or eliminated must be disclosed to NSF.

Debt and Debarment Certifications

Is the organization delinquent on any Federal debt?	Yes 🗖	No 🛛
Is the organization or its principals presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily exclusion from covered transactions by any Federal department or agency?	ided Yes 🗖	No 🛛

(If answer "yes" to either, please provide explanation.)

Certification Regarding Lobbying

This certification is required for an award of a Federal contract, grant, or cooperative agreement exceeding \$100,000 and for an award of a Federal loan or a commitment providing for the United States to insure or guarantee a loan exceeding \$150,000.

Certification for Contracts, Grants, Loans and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, Ioan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

AUTHORIZED ORGANIZATIONAL REPRESENTATIVE			SIGNATURE		DATE	
NAME/TITLE (TYPED)						
Robert B. Taylor					11/02/98	
	TELEPHONE NUMBER	ELECTRONIC MAIL ADDRESS		FAX N	JMBER	
	860-685-3683	rtaylor@wesleyan.edu		860	0-685-3120	
	*SUBMISSION OF SOCIAL SECURITY NUMBERS IS VOLUNTARY AND WILL NOT AFFECT THE ORGANIZATION'S ELIGIBILITY FOR AN AWARD. HOWEVER, THEY ARE AN INTEGRAL PART OF THE INFORMATION SYSTEM AND ASSIST IN PROCESSING THE PROPOSAL. SSN SOLICITED UNDER NSF ACT OF 1950, AS AMENDED.					