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PERSONAL AUTHOR(S)

Debra L. Tyrrell

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This research proposal status report is published quarterly as of March, June, September, and December of each year.

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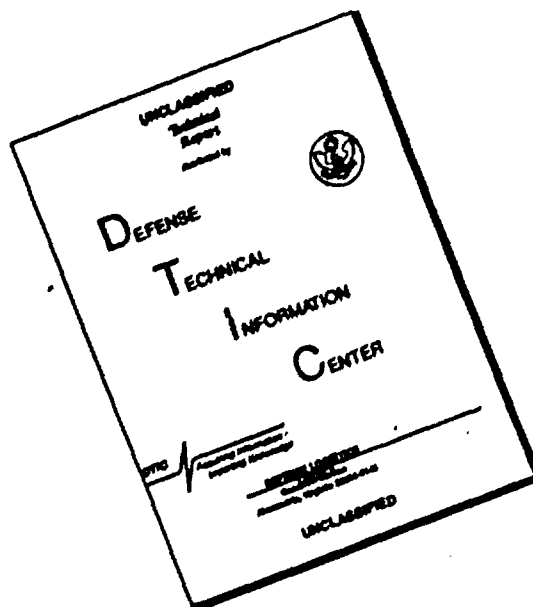
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22a. NAME OF RESPONSIBLE INDIVIDUAL
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AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
RESEARCH PROPOSAL
QUARTERLY STATUS REPORT



October - December 1990

RESEARCH PROPOSAL

QUARTERLY STATUS REPORT

January 1991

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A-1

INTRODUCTION

The Research Proposal Quarterly Status Report is published in March, June, September, and December by the Air Force Office of Scientific Research (AFOSR). It lists all the research proposals received by AFOSR in the previous six months along with the action taken (Initiated, Declined or Withdrawn) on each report.

The report is divided into two parts. The Institution index lists proposals alphabetically by institution. This is followed by a more detailed listing by Directorate, and by Program Manager within the Directorate.

PURPOSE

This report is designed to inform other Government sponsoring agencies of the proposals received by the AFOSR and the action taken on these proposals. Readers must keep in mind that declined proposals should not necessarily be considered as scientifically unacceptable; many declinations result from a lack of funds or as a result of special programmatic emphasis.

AFOSR MISSION

The Air Force Office of Scientific Research (AFOSR) is the single manager of the Air Force Defense Research Sciences Program (Program Element 61102F) and the primary Air Force agency for the extramural support of fundamental scientific research. The AFOSR is organized under the Air Force Systems Command, DCS/Technology.

AFOSR awards grants and contracts for research in areas of science relevant to the needs of the Air Force. Research is selected for support from proposals received in response to the Broad Agency Announcement from scientists investigating problems involving the search for new knowledge and the expansion of scientific principles. Selection is on the basis of scientific potential for improving Air Force operational capabilities, originality, significance to science, the qualification of the principal investigators, and the reasonableness of the proposed budget.

KEY TO READING THE DATA

TITLE - The title of the research proposal

INSTITUTION - The organization, (e.d., college/university, company) at which the research will be conducted.

INVESTIGATOR - The Principal Investigators proposing the research.

TYPE - N indicates a new research effort.

- R indicates a continuation of an ongoing research effort.

MONTHS - The duration of the research proposal.

RECEIVED - The month and year in which the AFOSR received the proposal.

AMOUNT - The funds requested of the AFOSR for support of the research proposal.

STATUS - A = ACCEPTED indicates that the review has been completed and the proposal recommended for funding.

- D = DECLINED indicates the proposal has been reviewed but will not be funded by the AFOSR.

- BLANK SPACE = indicates the proposal is being reviewed.

- W = WITHDRAWN indicates that the proposal submitted was removed from further consideration at the proposers request.

PROGRAM MANAGER - The AFOSR scientific staff member assigned the responsibility for the technical evaluation of the proposal.

PROPOSAL # - An AFOSR Directorate assigned control number to uniquely identify the research proposal.

INITIATE - The proposal has been recommended to the AFOSR Directorate of Contracts for the amount and duration.

START DATE - The recommended date for commencement of the research.

TOTAL AMOUNT - The estimated number of dollars recommended for support of the research effort; the actual amount is subject to negotiation.

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Dr Leonidas Sakell	4935
Dr Spencer Wu	6962
Dr Julian Tishkoff	0465
Dr James McMichael	4936
Lt Col Steven Boyce	6963
Dr Dan Fant	0471
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Dr Neal Glassman	5026
Dr Marc Jacobs	5027
Dr Arje Nachman	4939
Dr Jon Sjogren	4940
Dr Abraham Waksman	5028

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Dr Liselotte Schioler	4933
Dr Harold Weinstock	4933
Dr Alan Craig	4931
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Dr Gerald Witt	4931
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PART I

REPORT DATE 01/30/91
INSTITUTION INDEX C 1 OCT 90 - 31 DEC 92
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
STATUS - 'A' = ACCEPTED, 'U' = DECLINED, 'W' = WITHDRAWN

INSTITUTION	LAST NAME	FIRST NAME	MIDDLE	PROPOSAL	STATUS	PH NAME
Aerospace Corporation Air Force Institute of Technology	Kaffend	J. Brooks		91-NC-012	A	WODARCYZK
	Hardesty	Robert	L	91-XC-004	A	OWENS
	Wengenold	Robert	L	91-XC-003	A	OWENS
Air Force Weapons Lab	Wangenold	Robert	L	91-XC-002	A	OWENS
	Palazotto	Anthony	L	91-NM-023	A	NACHMAN
	Stytz	Martin	L	91-NP-012	A	LUPO
Air Force Wright Aeronautical Labs	Juter	Bruce	L	91-NM-005	A	SJOGREN
	Gurnette	Howard		91-NP-017	A	LUPO
	Mares	Mary Ann		91-NM-005	A	NACHMAN
American Ceramic Society	Schepler	Kenneth	L	91-NA-013	A	SAKELL
	Halbrook	John	P	91-NP-004	A	SCHLOSSBER
	Dow	Richard		91-NE-012	A	SCHLIOLER
Arizona State University	Follmire	Gabriel		91-NE-004	A	POMRENKE
	Ann-Dor	Michael		91-NM-101	A	SJOGREN
	Cohen	Stephen	A	91-NL-022	A	BOYCE
Aware, Inc.	Grossberg	Peter		91-NL-013	A	HADDAD
	Bates	W.M. Fleming	L	91-NM-104	A	HADDAD
	H.J. Kushner	Mike		91-NM-054	A	NACHMAN
Ben-Gurion University of the Negev	Molden	Egon		91-NA-023	A	JACOBS
	Salas	Jack		91-NM-102	A	SAKELL
	Kosnik	Yoshiyasu	L	91-NM-015	A	GLASSMAN
Boston University	Takefuji	Robert	R	91-NC-019	A	ZURGGRAF
	Alfano	Theodore		91-NP-013	A	GLASSMAN
	Axonrod	Joseph		91-NC-023	A	SCHLOSSBER
Brigham Young University	Birman	Natalia		91-NE-031	A	HEDBERG
	Sternberg	An-Bin		91-NM-087	A	CRAIG
	Huan	Louis		91-NA-022	A	NACHMAN
Calspan-U2 Research Center	Flanman	Wm	I	91-NM-113	A	BOYCE
	Mans	Timothy	J	91-NE-025	A	NACHMAN
	Healey	Philip		91-NM-053	A	POMRENKE
Carnegie-Mellon University	Holmes	Christopher	K	91-NM-004	A	NACHMAN
	Ober	Henry	L	91-NC-007	A	HEDBERG
	Liquor	R.		91-NE-036	A	WEINSTOCK
Case Western Reserve University	McAdams	Poy		91-NP-018	A	LUPO
	Gupta	Vijay		91-NP-023	A	LUPO
	Osterberg	Mike	L	91-NA-015	A	HARITOS
City College - CUNY	Kennedy	Lawrence		91-NC-002	A	ULRICH
	Arand	W L		91-NP-013	A	LUPO
	Chow	Abram		91-NL-012	A	HADDAD
Clark University	Kandel	Ronald		91-NA-010	A	MCMICHAEL
	Waynant	G.		91-NM-061	A	WAKSMAN
	Adelman	Sanjay	M	91-NP-014	A	SCHLOSSBER
Clarkson University	Correa	J.	M	91-NM-063	D	NACHMAN
	Gillingall	Peter		91-NA-032	A	TISHKOFF
	Pachowicz	John		91-NE-003	A	WITT
Colorado School of Mines	Batholdi		J	91-NE-003	A	WAKSMAN
				91-NM-106	A	GLASSMAN
				91-NM-083	A	GLASSMAN
Columbia University						
Cornell University						
Cryopower Associates						
Culham Laboratory						
Dartmouth College						
Eastern Space & Missile Center						
Eye Research Institute & Retina Fdn						
Florida Atlantic University						
Florida State University						
Food and Drug Administration						
General Analytic Corporation						
General Electric Co						
General Electric Electronics Lab						
George Mason University						
Georgia Institute of Tech						

ALL HOPES OFFICE OF SCIENTIFIC RESEARCH

STATUS - "A" = ACCEPTED, "D" = DECLINED, "W" = WITHDRAWN

INSTITUTION	LAST NAME	FIRST NAME	MIDDLE	PROPOSAL	STATUS	PM NAME
Georgia Tech Research Corporation	Zinn	Ben	T	91-NA-011	A	BIRKAN
	Winkler	John		91-NA-035		WU
	Kandamattar	George		91-NA-033		HARITOS
	Kumar	Satish		91-NC-003		HEDBERG
Georgia Univ Research Foundation Inc	Scheffer III	Henry		91-NC-010		DAVIS
London Research Conferences Inc	Atkins	Richard		91-NC-011		HEDBERG
	Crane	William		91-NP-034		KELLEY
Crucifixion	Alexander		M	91-NE-002	A	CRAIG
				91-NE-017	A	ROSENSTEIN
				91-NE-032	C	WEINSTOCK
				91-NL-003		HADDAD
				91-NA-041		WU
Lehmann University	Harry			91-NM-029	A	NACHMAN
Harris Corp. Government Systems Section	Harry			91-NP-015	A	KELLEY
Harry E. Moses Applethorn	Gerald			91-NL-004	A	FREGLY
Harvard University	Schacter	Daniel	L	91-NM-073		HOLLAND
	Yau	Shing-Iun		91-NM-062		NACHMAN
Howard University	Michael	Louise	A	91-NE-039		POMRENKE
Hughes Aircraft Co	Lam	Joseph	F	91-NM-044		WAKSMAN
Low Almaden Research Center	Halpern	Joseph	F	91-NE-021		HEDBERG
	Wilson	C. Grant		91-NA-005	A	WU
Illinois Institute of Technology	Gurainick	S	A	91-NM-036		WAKSMAN
Indiana University	Hanson	Andrew	J	91-NM-090		NACHMAN
Indiana University-Purdue Univ at Indpls	Frankel	Michael	L	91-NL-025		HADDAD
Institut de Recherche et Coord Acoustique	Madams	Stephen		91-NM-042		NACHMAN
Iowa State Univ of Science and Tech	Sacks	Paul		91-NM-037		NACHMAN
Iowa State University Department of Math	Levine	Howard	A	91-NC-033		HADDAD
Istituto Di Ricerche Farmacologiche	Consoli	Silvana		91-NE-027	A	SURGGRAT
Kansas State University	Snodgrass	Peter M. A.	S	91-NL-001		CRAIG
Kent State University	Moroi	David		91-NL-001	A	CERVENY
King's College (Univ. of London)	Gabriel	Kenneth	C	91-NP-023		KELLEY
Lawrence Livermore Lab (Calif Univ)	Kallander	Fed	T	91-NE-019		POMRENKE
	Saito	Michael		91-NM-007	A	WITT
Lehigh University	Stavola	James	M	91-NP-025	A	NACHMAN
Los Alamos Nat'l Lab--Appl Theor Phys Div	Myman	Warner	A	91-NP-001		LUPO
	Miller	Peter	M	91-NM-091		KELLEY
Martin Marietta Corporation	Milonni	Charles		91-NE-016		NACHMAN
Massachusetts Institute of Technology	Stinson	o	D	91-NP-007	A	POMRENKE
	Klepper	Daniel		91-NA-035		KELLEY
	Martinez-Jancz	Manuel		91-NM-067		BIRKAN
	Lu	Qiang		91-NC-033		NACHMAN
Michigan State University	Orlew	S. A.	S	91-NM-041		BURGGRAT
NASA - Langley Research Center	Plumthal	Marjory		91-NC-004	A	HOLLAND
National Academy of Sciences	Jinks	Richard	A	91-NP-011	A	STOBIE
National Center for Atmospheric Research	Hall	John	H	91-NP-009	A	SCHLOSSBER
National Inst. of Standards & Technology	Lucatorio	Thomas	B	91-NL-015		KELLEY
National Institutes of Health	Rauschecker	Josef	P	91-NL-023	A	HADDAD
National Research Council	Saith	Philip	M			WITT

INSTITUTION	INVESTIGATOR	LAST NAME	FIRST NAME	MIDDLE	PROPOSAL	STATUS	PM NAME
National Science Foundation	Tasi	Giorgio			91-WC-017	A	STOBIE
New Jersey Institute of Technology	Krietsmann	Gregory		A	91-NM-086		NACHMAN
New York University	Spurling	George			91-NL-011	A	HADDAD
	Williamson	Samuel		J	91-NL-027		FREGLY
Northeastern University	Jacobson	Clas		A	91-NM-016		JACOBS
	Tadmor	Bilead			91-NM-055		JACOBS
Northeastern University	Croore	Sunil			91-NM-039		GLASSMAN
	Daniel	Isaac		M	91-NA-017		HARITOS
	Drucker	Stephen		G	91-WC-033		BURGGRAF
Ohio State Univ Research Foundation	Subramaniam	V		V	91-NA-007		BIRKAN
	Subramanian	V		V	91-NA-003		BIRKAN
Ohio State University	Jayadrakash	C.			91-NM-083		NACHMAN
	Majda	George			91-NM-033		NACHMAN
Oklahoma St Univ--Center for Laser Resch	Powell	Richard		C	91-NP-027		SCHLOSSBER
Oklahoma State University	Pavel	Richard		C	91-NE-037		CRAIG
	Riff	Lionel		M	91-WC-030		BURGGRAF
Old Dominion University	Grosen	Chester		E	91-NM-040		NACHMAN
	Jackson	Thomas		L	91-NM-043	A	NACHMAN
Optical Shield Inc.	Hsu	Ying-Yen			91-NC-031		BURGGRAF
Optical Society of America	Quinn	Jarus		M	91-NP-037	A	SCHLOSSBER
Pennsylvania State University	Ernst	Wolfgang		E	91-NC-032		BURGGRAF
	Santoro	R		J	91-NA-033		BIRKAN
	Settles	Gary		S	91-NA-004	A	SAKELL
	Yung	Vigor			91-NA-012	A	BIRKAN
Polytechnic University	Wolf	Edward		L	91-NE-007	A	WEINSTOCK
Princeton University	Cinlar	Graham			91-NM-095		SJOGEN
	Erinten	A C			91-NA-015		HU
	Flava	David			91-NM-022		JACOBS
	Haoper	William			91-NP-021	A	KELLEY
	Kelley	Arnold		J	91-NA-001	A	BIRKAN
	Orszag	Steven		A	91-NM-103		NACHMAN
	Strain	John			91-NM-077	A	NACHMAN
Purdue University	Ashyinkar	Shreeram			91-NM-033		GLASSMAN
	Copper, Jr.	James		A	91-NE-035	A	WITT
	Stavinson-Lusemeyer	Mary Kay			91-NL-023		FREGLY
	Cadieu	F		J	91-NE-023	D	WEINSTOCK
	Sorenson	Gunny		C	91-NM-072		HOLLAND
	McMichael	Ian			91-NP-025		SCHLOSSBER
Rockwell International Science Center	Tarowski	Allen			91-NA-008	A	TISHKOFF
	Mardocca	Miles			91-NE-010	A	CRAIG
Rutgers - The State University	Sanna	David		F	91-NM-075		GLASSMAN
	Conti	Eduardo		D	91-NM-095		JACOBS
	Colson	Bernard			91-NM-103		JACOBS
Rutgers The State Univ. Coll of Engin	Wallbank	Garry			91-NM-055		NACHMAN
SAINT FRANCIS XAVIER UNIVERSITY	Yount	Yount		K	91-NP-003		KELLEY
RF International	Carroll	Donald		R	91-NP-024		BARKER
	Furris	Gregory		M	91-NA-023		ROYCE
					91-NP-033		SCHLOSSBER

INSTITUTION	INVESTIGATOR	FIRST NAME	MIDDLE	PROPOSAL	STATUS	PM NAME
Southern Illinois University	Hickman	A. Paet		91-NP-005		LUPO
	Kuchru	Ravinder		91-NP-030		KELLEY
	Schmitt	Robert	J	91-NC-009		ULRICH
	Shukla	Premal		91-NC-013		HEDBERG
Southern University	Spector	Scott	J	91-NM-114	A	NACHMAN
	Fan	J	D	91-NE-030		WEINSTOCK
Stanford University	Geballe	T	H	91-NE-019	A	WEINSTOCK
	Reynolds	W	C	91-NA-025	A	MCMICHAEL
State University Of New York	Kipar	Deepak		91-NM-014		WAKSMAN
	Malick	Chris	J	91-NC-001		STOBIE
State University of New York	Baxter	Laurence	A	91-NM-017		SJOGREN
	Strongin	Daniel	R	91-NC-023		BURGGRAF
Stevens Institute of Technology	Taksar	Michael		91-NM-074	D	JACOBS
	Calvetti	Daniela		91-NM-093	D	NACHMAN
	Du	Honghua		91-NC-006		BURGGRAF
	Ermler	Walter	C	91-NP-036	A	LUPO
Syracuse University	Fox	Geoffroy	C	91-NM-073		NACHMAN
	Naugle	Donald	G	91-NE-027	D	WEINSTOCK
Texas A and M Research Foundation	Walton	Jay	R	91-NM-079		NACHMAN
	Kirk	W	P	91-NE-005	A	WITT
Texas Engineering Experiment Center	Naugle	D	G	91-NE-029	D	WEINSTOCK
	Taylor	Henry	F	91-NE-031	A	CRAIG
United Technologies Research Center	Colket	Meridith	B	91-NA-037	A	TISHKOFF
	Smith	Frank		91-NA-029	D	FANT
Univ College London/Mullard Space Scilab	Wyonski	Israel	J	91-NA-005		MCMICHAEL
	Yaz	Engin		91-NM-105		JACOBS
Univ of Arizona	Bayo	Estuardo		91-NA-014		WU
	Bullock	Theodora	H	91-NL-007	A	FREGLY
Univ of Arkansas	Coldren	Larry	A	91-NE-015		CRAIG
	Crooker	Nancy	U	91-XO-001	A	BOLAND
Univ of California	Dyer	Michael	G	91-NM-094		JACOBS
	Focht	Dennis	D	91-NL-026		CERVENY
	Gerber	Robert	B	91-NC-026		HEDBERG
	Graves	Glen	W	91-NM-033		GLASSMAN
	Hirsch	Morris		91-NE-040		SUDDARTH
	Kreger	Arthur	J	91-NM-025		JACOBS
	Laub	Alan	J	91-NM-053	A	JACOBS
	Metiu	Horia	I	91-NC-034		BURGGRAF
Univ of Central Florida	Saha	Kenneth	J	91-NP-032		BURGGRAF
	Stegeman	George	P	91-NE-034	A	KELLEY
Univ of Cincinnati	Horn	Paul	S	91-NM-027		CRAIG
	Simitses	George	J	91-NM-031		SJOGREN
Univ of Colorado	Harvey, Jr	Lewis	O	91-NL-028		HADDAD
	Lineberger	W. Carl	E	91-NC-015		BURGGRAF
Univ of Connecticut	Laona	Stephen	E	91-NC-042		BURGGRAF
	Gonsalves	Kenneth	E	91-NC-005		BURGGRAF
	Rivishanker	Valini		91-NM-064		SJOGREN

INSTITUTION INDEX (1 OCT 90 - 31 DEC 90)
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
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REPORT DATE 01/30/91

INSTITUTION	INVESTIGATOR	LAST NAME	FIRST NAME	MIDDLE	PROPOSAL	STATUS	PM NAME
Univ of Dayton	Davidson	Corker	Joseph	E	91-XO-005	A	BOLAND
			Asok	K	91-NA-027		WU
Univ of Delaware	Labiccia	Rejto	Vincent	N	91-XO-006	A	BOLAND
			Lilia		91-NM-025		SJOGREN
Univ of Denver	Schroeder	Kryfite	Jim		91-NM-107		SJOGREN
			Barbara	L	91-NM-112		SJOGREN
Univ of Houston	Long	Anuj	Stuart	A	91-NM-037		NACHMAN
			Narendra		91-NE-037	D	WEINSTOCK
Univ of Illinois	Patis	Newton	Paul		91-NM-097		WAKSMAN
			Brian		91-NA-024	A	HARITOS
Univ of Iowa	Ross	Shoana	Paul	K	91-NA-033		BOYCE
			A	H	91-NM-019		NACHMAN
Univ of Lowell	Yiu	Stwallay	Stephen	A	91-NL-035		FREGLY
			William		91-NA-013		WU
Univ of Maryland	Cagnanis	Granatstein	John	C	91-NM-063	D	JACOB
			Victor	M	91-NC-041		BURGGRAF
Univ of Michigan	McIlrath	Oleary	Marlo	L	91-NA-013	A	BOYCE
			Thomas		91-NE-011	A	POMRENKE
Univ of Minnesota	Srolovitz	Friedman	Dianne	P	91-NP-023	A	BARKER
			Eric	V	91-NP-005		KELLEY
Univ of Missouri	Tierrell	Gestasy	Jackson	C	91-NM-024		SJOGREN
			John		91-NM-040		WU
Univ of North Carolina	Gand	Srolovitz	John		91-NA-003		KELLEY
			Chiraj	K	91-NP-003		BOYCE
Univ of North Texas	Marsh	Gand	Jackson C		91-NM-071		HOLLAND
			Raymanen		91-NA-021		MCMICHAEL
Univ of Oregon	Gestasy	Gand	Paliss	C	91-NE-021		WITT
			Stephen	J	91-NP-031	A	SCHLOSSBER
Univ of Pennsylvania	Ficottin	Ficottin	David		91-NE-013		ROSENSTEIN
			Jon		91-NM-011		SJOGREN
Univ of Pittsburgh	Goldin	Goldin	Avner		91-NM-024	D	BURGGRAF
			Matthew		91-NC-024		NACHMAN
Univ of Rhode Island	Lent	Marsh	Friedrich		91-NM-113		SJOGREN
			Stamatis		91-NM-043		NACHMAN
Univ of Southern California	Gestasy	Gestasy	Alexander	A	91-NM-111	A	GLASSMAN
			David	E	91-NM-076		KELLEY
Univ of Tennessee	Gestasy	Gestasy	Jon		91-NP-010	A	POMRENKE
			David	S	91-NE-001		SJOGREN
Univ of Texas	Gestasy	Gestasy	Lawrence	C	91-NM-030		FREGLY
			Morton	A	91-NL-006		BURGGRAF
Univ of Virginia	Gestasy	Gestasy	William	P	91-NC-028	A	GLASSMAN
			Stavros	A	91-NM-012		NACHMAN
Univ of Washington	Gestasy	Gestasy	Sunduz	J	91-NM-030		NACHMAN
			William	V	91-NM-073	A	BERRY
Univ of Wisconsin	Gestasy	Gestasy	Robert	M	91-NL-020		NACHMAN
			Leonard		91-NM-059		BERRY
Univ of Wyoming	Gestasy	Gestasy	Martin		91-NL-015		BURGGRAF
			Larry	R	91-NC-014		BURGGRAF

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STATUS - 'A' = ACCEPTED, 'D' = DECLINED, 'W' = WITHDRAWN

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INSTITUTION	INVESTIGATOR	FIRST NAME	MIDDLE	PROPOSAL	STATUS	PM NAME
Univ of Tennessee	Corratt	Stephen	R	91-MC-025		BURGGRAF
	Stellar	William	H	91-ME-024	A	POMRENKE
	Alikakos	Nicholas		91-ME-014		MITT
	Nelson	Randall	J	91-MM-103		NACHMAN
Univ of Tennessee / Spacr Institute	Patrick	Howard V L		91-NL-014		HADDAD
	Roth	J. Ryece		91-NA-034	A	SAKELL
	Kreier	Dennis		91-MP-022	A	PARKER
	Lator	Richard	J	91-NA-025	A	BIRKAN
Univ of Tennessee / Spacr Institute	Duganston	Kurt	E	91-MC-035	A	BURGGRAF
	Burke	James	V	91-MM-003		NACHMAN
	Magourney	Warren		91-MM-050		GLASSMAN
	Sarikaya	Mehmet		91-MP-023		KELLEY
Univ of West Florida	Epstein	William	C	91-MC-003	A	HEDBERG
	Lin	Chun	C	91-MP-015		SCHLOSSBER
	Lon	Wei-Yin		91-NL-010		FREGLY
	Malkus	David	S	91-MP-035		KELLEY
Univ of Wisconsin	Vade	Bruce	A	91-MM-013		SJOGREN
	West	Robert		91-MM-065		NACHMAN
	Grobbs	Richard	J	91-MM-092	D	NACHMAN
	Kohler	Werner	E	91-MC-036	D	HEDBERG
Virginia Polytechnic Inst & State Univ	Dickinson	J. Thomas		91-NL-024		HADDAD
	Jacobs	Michael	A	91-MM-020	A	NACHMAN
	Kasyk	Mark	G	91-MC-027		BURGGRAF
	Hofflin	Robert	B	91-MM-035		GLASSMAN
Wayne State University	Yin	Rasuf	A	91-MC-060		HEBERG
	Kronauz	Valeri	G	91-MM-101		GLASSMAN
	Hilton	Anthony	J	91-NA-030		WU
	Li	Dening		91-MM-043		SJOGREN
West Virginia University	Thang	Cun-Quan		91-MC-020		HEDBERG
	Elcrat	Alan		91-MM-082		GLASSMAN
	Frisk	K.	T	91-MM-046		NACHMAN
	Fj	Jyun-Hong	H	91-MM-066		GLASSMAN
Vila University	Gilkey	Robert		91-MM-003	A	NACHMAN
	Ho	Lou-Fat		91-MM-029		SJOGREN
	Svobodny	Thomas	P	91-MM-033		GLASSMAN
	Green	Thomas	H	91-MM-060		JACOBS
Vila University	McNemott	Crew	V	91-NL-021	A	HADDAD
				91-MM-084		JACOBS
				91-MM-089		JACOBS
				91-NL-013		HADDAD
			91-MM-021		WAKSMAN	

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TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
TURBULENCE FROM "30 TO "40: A POSITION PAPER ON THE PRESENT STATE OF TURBULENCE FLUID MECHANICS Univ of Arizona	Wysznanski Israel	N 24 11/10/90 \$60,000	MCMICHAEL 91-NA-006	
A NEW SYSTEM IDENTIFICATION TECHNIQUE FOR IN-SITU DETERMINATION OF SOIL DYNAMIC PROPERTIES Univ of Maryland	Yang Jackson C S	N 24 19/10/90 \$145,606	BOYCE 91-NA-009	
EFFECT OF THE FINITE ROTATION ON THE PROPAGATION OF IMPACT REDUCED WAVES Univ of Illinois	Shabana A	N 24 30/10/90 \$260,661	WU 91-NA-013	
MAXIMIZATION OF THE TRANSVERSE STRENGTH AND LONGITUDINAL TOUGHNESS IN METAL AND CERAMIC MATRIX COMPOSITES Dartmouth College	Gupta Vijay	N 36 02/11/90 \$389,894	HARITOS 91-NA-016	
EFFECT OF PARTICLE SHAPE ON THE MECHANICAL BEHAVIOR OF GRANULAR MATERIALS: A DISCRETE ELEMENT STUDY Univ of Lowell	Ting John	N 36 09/11/90 \$231,030	BOYCE 91-NA-019	
INTERMITTENT FINE SCALE STRUCTURE OF VORTICITY AND DISSIPATION FIELDS IN TURBULENT SHEAR FLOWS Univ of Michigan	Akhavan Rayhaneh	N 36 29/11/90 \$255,002	MCMICHAEL 91-NA-021	
THREE-DIMENSIONAL MICROMECHANICAL MODEL FOR DEFORMATION OF FIBRILLAR MATERIAL ISI International	Curran Donald	N 36 03/12/90 \$269,975	BOYCE 91-NA-023	
INTERGOVERNMENTAL PERSONNEL ACT (IPA) Univ of Illinois	Botsis John	N 08 04/12/90 \$58,265	A HARITOS 91-NA-024	\$58,265 07/01/91 \$58,265
INVESTIGATION OF THE REACTION MECHANISMS IN THE REGULAR AND REFINED MgO-AMMONIUM PHOSPHATE-WATER SYSTEMS Univ of Dayton	Sarker Asok	N 36 11/12/90 \$219,384	WU 91-NA-027	

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PROPOSED WIND TUNNEL EVALUATION OF THE AERODYNAMIC AND ACOUSTIC CHARACTERISTICS OF A DUCTED-PROPELLER Univ of Tennessee	PATRICK Howard V L	N 24 17/12/90 \$160,736	SAKELL 91-NA-034	
FUNDAMENTAL STUDIES IN CRACK INITIATION Univ of Illinois	JOHN	N 36 28/12/90 \$209,691	BOYCE 91-NA-038	
A NEW IDENTIFICATION METHOD FOR LINEAR/NONLINEAR SYSTEM SUBJECT TO RANDOM STATIONARY/NONSTATIONARY RANDOM INPUT Univ of Maryland	JACKSON	N 24 28/12/90 \$163,711	WU 91-NA-040	
LASER INDUCED FLUORESCENCE DIAGNOSTICS FOR NOCTURNAL THUNDERSTORMS Univ of Tennessee / Johns Hopkins	KEETER Dennis	N 36 11/12/90 \$312,669	A BIRKAN 91-NA-026	\$99,978 15/03/91 \$312,669
OUTER-BOUNDARY LAYER FLUX SUPPORT Air Force Weapons Lab	MADON Mary Ann	N 10 05/11/90 \$4,000	A SAKELL 91-NA-018	\$8,000 01/12/90 \$8,000
INVESTIGATION OF FLAME EXTINGUISHING AND FLOW TURNING IN AXIAL SOLID ROCKET INSTABILITIES Georgia Institute of Tech	LIEN Ben	R 24 30/10/90 \$211,282	A BIRKAN 91-NA-011	\$109,406 15/03/91 \$221,282
DEVELOPMENT AND ASSESSMENT OF TURBULENCE-CHEMISTRY MODELS IN HIGHLY STAINED HIGH-PRESSURE PLASMAS General Electric Co	COOPER Janday	N 36 17/12/90 \$253,773	TISHKOFF 91-NA-032	
A NATIONAL STUDY OF LAMINAR-TURBULENCE TRANSITION Florida Atlantic University	THOMAS W L	N 36 23/10/90 \$221,760	MCMICHAEL 91-NA-010	
NUMERICAL THEORY AND ALGORITHMS FOR THE NON-CIRCULAR INV. OF THE SINGULAR AND CONTROL OF SPACE-BASED ARTICULATED STRUCTURES Univ of California	CHANG Chicago	N 26 30/10/90 \$239,397	WU 91-NA-014	

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THERMAL SHOCK DAMAGE OF CERAMIC MATRIX COMPOSITES Georgia Tech Research Corporation	Kardomatas	N 36 17/12/90 \$181,953	HARITOS 91-NA-033	
THERMODYNAMICS OF CHAOTIC VIBRATIONS IN BEAMS Georgia Tech Research Corporation	Manayud	N 36 19/12/90 \$324,379	WU 91-NA-036	
JOE SEEKER PROGRAM, GUSRC PROPOSAL 19881 Johnson-J3 Research Center	Holden	N 06 13/12/90 \$463,855	A SAKELL 91-NA-028	\$463,855 02/01/91 \$463,855
EXPERIMENTAL RESEARCH ON CROSSING SHOCK WAVE BOUNDARY LAYER INTERACTIONS Pennsylvania State University	Sattles	R 36 05/10/90 \$320,000	A SAKELL 91-NA-004	\$120,000 01/04/91 \$320,000
ACOUSTIC WAVES IN COMPLICATED GEOMETRIES AND INTERACTIONS Pennsylvania State University	Yang	N 24 30/10/90 \$104,480	A BIRKAN 91-NA-012	\$104,480 15/03/91 \$104,480
COMBUSTION INSTABILITY PHENOMENA OF IMPORTANCE TO LIQUID ROCKET ENGINES Pennsylvania State University	Santoro	N 36 28/12/90 \$240,000	BIRKAN 91-NA-039	
FATIGUE, HYSTERESIS AND ACOUSTIC EMISSION Illinois Institute of Technology	Sokolnick	N 12 10/10/90 \$80,000	A WU 91-NA-005	\$80,000 02/01/91 \$80,000
CHARACTERIZATION OF DEFORMATION AND DAMAGE IN BRITTLE-MATRIX COMPOSITES MATERIALS Northwestern University	Daniel	R 36 02/11/90 \$428,639	HARITOS 91-NA-017	
EXPERIMENTAL FOR MECHANISTIC MODELS OF SOOT FORMATION Institut Technologies Research Center	Colinet	N 36 19/12/90 \$387,545	A TISHKOFF 91-NA-037	\$41,390 01/06/91 \$387,545

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RECOVERY OF FROZEN FLOW LOSSES IN NOZZLES Ohio State Univ Research Foundation	V	0 43 04/10/90 \$304,239	BIRKAN 91-NA-003	
RECOVERY OF FROZEN FLOW LOSSES IN NOZZLES Ohio State Univ Research Foundation	V	R 48 10/10/90 \$304,239	BIRKAN 91-NA-007	
BUCKLING AND VIBRATION RESPONSE OF COMPOSITE SHELL STRUCTURES SUBJECTED TO THERMOMECHANICAL LOADS Univ of Cincinnati	George	N 24 17/12/90 \$172,922	WU 91-NA-031	
HIGH TEMPERATURE REACTION KINETICS OF CARBON OXIDES AND HYDROXIDES Rockwell International, Science Center	Allen	N 36 10/10/90 \$443,957	A TISHKOFF 91-NA-008	\$64,240 15/04/91 \$449,957
PLASMA INSTABILITY AND TRANSPORT IN TOKAMAKS Princeton University	Arnold	N 24 01/10/90 \$159,303	A BIRKAN 91-NA-001	\$159,803 15/01/91 \$159,803
MICROCONTINUUM MECHANICS FOR MATERIALS Princeton University	A C	N 36 30/10/90 \$460,323	WU 91-NA-015	
DYNAMIC STALL STRUCTURE Ohio College London/Univ of London	Frank	N 36 14/12/90 \$251,394	D FANT 91-NA-029	
IMAGE INFORMATION IN NOZZLE CONTROL Harris Corp. Government Systems Sector	David	N 25 20/12/90 \$329,324	WU 91-NA-041	
ANALYTICAL AND EXPERIMENTAL INVESTIGATIONS OF SUBSONIC FLOW IN NOZZLES Ohio State University	Robert	N 26 17/12/90 \$369,364	WU 91-NA-030	

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SHOCK WAVE PROPAGATION IN POROUS MEDIA Stanford University of the West	Ben-Gor Gabriel	N 25 20/11/90 \$297,000	ROYCE 91-NA-020	
PERFORMANCE POTENTIAL OF PLASMA THRUSTERS Massachusetts Institute of Technology	Martinez-Ramirez Manuel	N 24 19/12/90 \$177,305	9IRKAN 91-NA-035	
THE FIRST INTERNATIONAL SYMPOSIUM ON CALIBRATION OF CHAMBER TESTING Clarkson University	Huang An-Pin	N 12 23/11/90 \$17,266	ROYCE 91-NA-022	
STRUCTURE-BASED TURBULENCE MODEL Stanford University	Reynolds d	N 30 10/12/90 \$327,145	A MCMICHAEL 91-NA-025	\$200,780 01/04/91 \$327,145

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ACROSCOPIC BRITING OF PHOTOINDUCED MOLECULAR EFFECTS IN GLASSES	Ulf	ULRICH 91-NC-002	
Development of new electron donors and acceptors for the synthesis of organic metals	Robert	ULRICH 91-NC-009	
THEORETICAL/EXPERIMENTAL INVESTIGATIONS OF THE STRUCTURE AND DYNAMICS OF HIGHLY NERGETIC DIATION SPECIES	A. Carl	BURGGRAB 91-NC-016	
OLYMER DEPENDENT CARBONATE ELASTICITY EFFECTS ON CHAIN MOBILITY AND ORIENTATION IN GEL-CHAIN POLYMER LIQUID CRYSTALS	Premal	HEBERG 91-NC-018	
INTERFACIAL CHAINS IN A POLYMER IN THE SOLID STATE OF POLYMERS	Matthew	BURGGRAB 91-NC-024	
THE SYNTHESIS AND REACTION CHEMISTRY OF LINEAR CARBON: THE POLYMER ALLEYS OF CARBON	Richard	BURGGRAB 91-NC-035	
CHEMICAL REACTIONS AND PROPERTIES OF ORGANICALLY COMPOUNDS RELATED TO NEW MATERIALS	Robert	D HEBERG 91-NC-036	
SYNTHESIS AND PROPERTIES OF ORGANICALLY COMPOUNDS (HIS-VEL)	William	BURGGRAB 91-NC-041	
STATISTICAL DYNAMICS OF POLYMER CHAIN COLLISIONS IN A LIQUID	Stephen	BURGGRAB 91-NC-042	

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FLUORINE STUDIES OF THE OXIDATION OF ION-EXCHANGED SILICON INITIAL Stanford Institute of Technology	Stanford	N 12 16/10/90 \$33,660	BURGESS 91-NC-006	
FLUORINE CRYSTAL NONLINEAR OPTICAL MATERIALS Stanford Shield INC.	MSU	N 12 19/12/90 \$72,193	BURGESS 91-NC-031	
DEVELOPMENT OF DEVICE QUALITY NONLINEAR OPTICAL MATERIALS AND DETERMINATION OF MECHANISMS OF OPTICAL NONLINEARITY Stanford Institute of Technology	Stanford	N 12 13/11/90 \$205,245	BURGESS 91-NC-014	
DEVELOPMENT OF MECHANISMS OF VARIATION OF CRYSTALS AND THERMAL RELATIONS DETERMINATION OF OPTICAL AND ELECTRONIC PROPERTIES OF ORGANIC SEMICONDUCTORS Stanford Institute of Technology	Stanford	N 12 04/12/90 \$242,126	BURGESS 91-NC-025	
DEVELOPMENT OF MECHANISMS OF VARIATION OF CRYSTALS AND THERMAL RELATIONS DETERMINATION OF OPTICAL AND ELECTRONIC PROPERTIES OF ORGANIC SEMICONDUCTORS Stanford Institute of Technology	Stanford	N 12 16/11/90 \$75,000	A STORIE 91-NC-017	\$75,000 01/10/90 \$75,000
DEVELOPMENT OF MECHANISMS OF VARIATION OF CRYSTALS AND THERMAL RELATIONS DETERMINATION OF OPTICAL AND ELECTRONIC PROPERTIES OF ORGANIC SEMICONDUCTORS Stanford Institute of Technology	Stanford	N 12 17/12/90 \$100,000	HEDBERG 91-NC-029	
DEVELOPMENT OF MECHANISMS OF VARIATION OF CRYSTALS AND THERMAL RELATIONS DETERMINATION OF OPTICAL AND ELECTRONIC PROPERTIES OF ORGANIC SEMICONDUCTORS Stanford Institute of Technology	Stanford	N 12 01/10/90 \$71,454	STORIE 91-NC-001	
DEVELOPMENT OF MECHANISMS OF VARIATION OF CRYSTALS AND THERMAL RELATIONS DETERMINATION OF OPTICAL AND ELECTRONIC PROPERTIES OF ORGANIC SEMICONDUCTORS Stanford Institute of Technology	Stanford	N 12 13/12/90 \$145,388	BURGESS 91-NC-027	
DEVELOPMENT OF MECHANISMS OF VARIATION OF CRYSTALS AND THERMAL RELATIONS DETERMINATION OF OPTICAL AND ELECTRONIC PROPERTIES OF ORGANIC SEMICONDUCTORS Stanford Institute of Technology	Stanford	N 12 11/12/90 \$122,381	HEDBERG 91-NC-040	

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DYNAMICS OF MOLECULAR REACTIONS AT SOLID SURFACES

INVESTIGATOR

Univ of California

Barber

Robert

KINETICS OF GROWTH PHENOMENA AT SEMICONDUCTOR SURFACES

Univ of California

Allen

Horio

CRYSTALS AND RELATED MATERIALS. SYNTHESIS AND CHARACTERIZATION
OF A NEW CLASS OF MICROPOROUS MATERIALS

Shea

Kenneth

STUDY OF THE COMPRESSION BEHAVIOR OF HIGH PERFORMANCE FIBERS

Bozell Tech Research Corporation

Kumar

Satish

ORGANOMETAL STUDIES OF OXYGEN ATOMS AND OTHER HIGH ENERGY DENSITY
MOLECULAR SYSTEMS

Bozell Tech Research Corporation Inc

Senanayake III

Henry

INVESTIGATION OF HIGHLY EXCITED VIBRATIONAL STATES OF MOLECULES
USING NOVEL LASER-INDUCED FLUORESCENCE METHODS

Pennsylvania State University

Smith

Volfgang

COILED POLYMER AND POLYMER FILMS WITH TWO DIMENSIONAL SYMMETRY:
RELATIONS WITH TWO-DIMENSIONAL NONLINEAR OPTICAL PROPERTIES

Belmann Institute of Science

Shenoy

Valeri

STRUCTURAL STUDIES OF POLYMER FIBERS RELATED TO FIBER USE IN COMPOSITES
AND COMPOSITES

Pennsylvania State University

Shenoy

Peter A. A.

STUDIES OF HYBRID POLYMER COMPOSITES

Bozell Tech Research Corporation

Senanayake

Steenen

M 12
05/12/90
\$125,543

HEDBERG
91-NC-026

R 12
24/12/90
\$134,303

BURGGRAF
91-NC-034

M 12
31/12/90
\$138,410

BURGGRAF
91-NC-037

N 12
23/10/90
\$79,986

HEDBERG
91-NC-008

R 12
31/10/90
\$139,706

DAVIS
91-NC-010

N 12
24/12/90
\$163,322

BURGGRAF
91-NC-032

M 12
20/11/90
\$50,000

HEDBERG
91-NC-020

N 12
31/12/90
\$93,771

BURGGRAF
91-NC-033

M 12
31/12/90
\$74,269

BURGGRAF
91-NC-019

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THEORETICAL STUDIES OF FUNDAMENTAL PROBLEMS IN SILICON AND DIAMOND CVD AND OTHER SYSTEMS Oklahoma State University	Barf Lionel	R 12 13/12/90 \$116,232	BURGGRAP 91-NC-030	
MATERIALS DESIGN AND PROCESSING BY SIMULATING POLY OF WASHINGTON	Sarkisov Manmet	N 12 05/10/90 \$391,254	A HEDBERG 91-NC-003	\$200,000 01/05/91 \$660,000
SYNTHESIS OF HIGH-ENERGY DENSITY MATERIALS USING METACARBIDES AND STUDIES OF HIGH ENERGY INTERMEDIATION UNDER CRYSTALLINE CONDITIONS POLY OF PENNSYLVANIA	William William	N 12 15/12/90 \$112,123	BURGGRAP 91-NC-028	
ORGANIC ADDITION OF C-C COMPOUNDS BY THE DIRECT IMPLANTATION AND LOW TEM ASSIST COMBUSTION OF METAL OXIDE CATALYSTS State University of New York	Samuel Samuel	N 12 03/12/90 \$124,372	BURGGRAP 91-NC-023	
1991 BORDON CONFERENCE ON INDUSTRIAL CHEMISTRY London Research Conference, Inc	Richard Richard	N 12 07/11/90 \$7,520	HEDBERG 91-NC-011	
ATMOSPHERE PROGRAM DATA MANAGEMENT National Center for Atmospheric Research	Richard Richard	N 12 05/10/90 \$50,000	A STOEF 91-NC-004	\$50,000 01/10/90 \$70,000
SYSTEMS AND CHARACTERIZATION OF CROSSLINKED POLYOL POLYMER WITH CARBON AND STABLE POLYMER OPTICAL PROPERTIES The Air Force Research Center	William William	N 12 23/11/90 \$239,035	HEDBERG 91-NC-021	
EXPOSITION DESIGNING OF SOLID-STATE Case Western Reserve University	Kornel Jack	N 12 13/11/90 \$451,423	BURGGRAP 91-NC-015	
ATMOSPHERIC STUDIES OF THE ATMOSPHERE POLY OF PENNSYLVANIA	William William	N 12 24/12/90 \$40,560	BURGGRAP 91-NC-033	

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OPTICS AND SPECTROSCOPY IN CHEMICALLY-DENSE MEDIA Aerospace Corporation	Koffins J. Brinks	N 12 07/11/90 \$230,000	A MODARCZYK 91-MC-012	\$230,000 01/12/90 \$230,000
STRUCTURAL CONTROL OF MATERIALS BY LASER EVAPORATION AND RAPID CONDENSATION Inst of Connecticut	Kenneth consulves	N 12 15/10/90 \$145,394	BURGRAF 91-MC-005	
POLYMER-CERAMIC NANOCOMPOSITES FOR MICROELECTRONIC PACKAGING APPLICATIONS Cornell University	Joer Christopher	N 12 23/10/90 \$167,951	HEDBERG 91-MC-007	

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ADVANCED MICROELECTRONIC DEVICES FOR SEMICONDUCTORS	W. J. R. RAY	N 36 25/10/90 \$573,227	A POMRENKE 91-NE-011	\$80,000 01/02/91 \$557,992
WORKSHOP ON DEVELOPING POTENTIALS FOR ATOMISTIC SIMULATIONS	DAVID	N 08 01/11/90 \$5,950	A ROSENSTEIN 91-NE-013	\$6,850 01/03/91 \$6,850
WORKSHOP ON DEVELOPING POTENTIALS FOR ATOMISTIC SIMULATIONS	DAVID	N 36 12/11/90 \$785,231	WITT 91-NE-021	
SEVENTH INTERNATIONAL CONFERENCE ON DEFECTS IN SEMICONDUCTORS	Michael	N 12 27/11/90 \$3,000	A WITT 91-NE-022	\$3,000 01/05/91 \$3,000
SCATTERED ELECTRON BEAMS FOR MATERIAL CHARACTERIZATION	Stuart	N 36 23/11/90 \$304,069	D WEINSTOCK 91-NE-023	
SUPERCONDUCTIVE DEVICES FOR HIGH SPEED COMMUNICATIONS	Stuart	N 36 13/12/90 \$501,000	D WEINSTOCK 91-NE-035	
PROPOSAL FOR DEVELOPED TUNING FOR THE CONTINUOUS WAVE OSCILLATOR	James	N 12 21/12/90 \$53,231	A WITT 91-NE-035	\$53,231 01/07/91 \$53,231
SCIENTIFIC SUPPORT OF THE CALIFORNIA STATE UNIVERSITY COMMITTEE	Philip	N 12 05/12/90 \$20,000	A WITT 91-NE-029	\$20,000 01/03/91 \$20,000
INTERNATIONAL CONFERENCE ON MICROSTRUCTURES AND MICROELECTRONICS	James	N 12 10/10/90 \$6,200	A WITT 91-NE-005	\$6,200 20/05/91 \$6,200

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N 36 10/12/90 \$301,110	WEINSTOCK 91-NE-029	
N 36 25/12/90 \$325,000	A CRAIG 91-NE-038	\$197,742 01/05/91 \$443,119
N 36 05/11/90 \$1,277,723	A WITT 91-NE-014	\$521,900 01/04/91 \$3,124,434
N 26 29/11/90 \$752,791	POMKENKE 91-NE-024	
N 24 09/10/90 \$404,091	A WITT 91-NE-003	\$106,350 01/04/91 \$464,093
N 36 12/12/90 \$270,279	CRAIG 91-NE-031	
N 05 29/10/90 \$2,000	A SCHOLER 91-NE-012	\$2,070 28/04/91 \$2,000
N 03 07/11/90 \$9,000	CRAIG 91-NE-015	
N 36 31/12/90 \$354,321	SUGGART 91-NE-040	

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01-01-0001	RESEARCH IN ELECTRONIC MATERIALS	Craig	4 35 02/10/90 \$252,054	A POMRENKE 91-NE-001	\$80,000 15/03/91 \$292,054
01-01-0002	RESEARCH IN ELECTRONIC MATERIALS	Craig	4 12 05/11/90 \$50,000	POMRENKE 91-NE-018	
01-01-0003	RESEARCH IN ELECTRONIC MATERIALS	Craig	4 35 21/11/90 \$305,363	WEINSTOCK 91-NE-025	
01-01-0004	RESEARCH IN ELECTRONIC MATERIALS	Craig	4 35 25/12/90 \$321,571	CRAIG 91-NE-037	\$142,057 01/04/91 \$426,613
01-01-0005	RESEARCH IN ELECTRONIC MATERIALS	Craig	4 35 20/12/90 \$425,613	A CRAIG 91-NE-034	
01-01-0006	RESEARCH IN ELECTRONIC MATERIALS	Craig	4 35 25/12/90 \$323,349	POMRENKE 91-NE-039	
01-01-0007	RESEARCH IN ELECTRONIC MATERIALS	Alexander	4 05 04/10/90 \$5,000	A CRAIG 91-NE-002	\$5,500 15/05/91 \$5,500
01-01-0008	RESEARCH IN ELECTRONIC MATERIALS	Alexander	4 05 07/11/90 \$5,000	A ROSENSTEIN 91-NE-017	\$5,000 01/04/91 \$6,000
01-01-0009	RESEARCH IN ELECTRONIC MATERIALS	Alexander	4 03 17/12/90 \$5,000	WEINSTOCK 91-NE-032	

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PI TITLE (CONT.) UNIVERSITY	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
PI TITLE: STUDIES IN DEGENERATE LASER SYSTEMS Polytechnic University	Edwards	N 24 12/10/90 \$40,095	A WEINSTOCK 91-NE-007	\$40,095 01/03/91 \$40,095
PI TITLE: OF ELECTROMAGNETIC WAVES PROPAGATING IN POLYMER ANISOTROPIC OPTICAL MATERIALS Cent State University	Goff	N 24 05/12/90 \$104,000	A CRAIG 91-NE-027	\$52,000 01/03/91 \$104,539
PI TITLE: GROUP BY MICROSCOPE OPTICAL COMPUTING ARCHITECTURES University - The State University	Winters	N 03 13/10/90 \$8,000	A CRAIG 91-NE-010	\$13,000 23/01/91 \$13,000
PI TITLE: TEMPERATURE SUPERCONDUCTORS WITH IMPROVED CURRENT DENSITIES Synposon Associates	Henry	N 24 26/12/90 \$499,963	A WEINSTOCK 91-NE-036	\$266,212 01/04/91 \$499,963
PI TITLE: MATERIALS RESEARCH IN COMPOUND ALUMINUMS Massachusetts Institute of Technology	Winters	N 36 07/11/90 \$77,025	POMRENKE 91-NE-016	
PI TITLE: HELIUM TO STAPHYLO UNIVERSITY Stanford University	Winters	N 36 13/11/90 \$93,000	A WEINSTOCK 91-NE-019	\$30,000 01/11/90 \$90,000
PI TITLE: INTERPOLARIAL MATERIALS AND DEVICES FOR HIGH SPEED AND INTERPOLARIAL MATERIALS AND DEVICES FOR HIGH SPEED AND Columbia University	Winters	N 26 03/12/90 \$510,000	POMRENKE 91-NE-026	
PI TITLE: COMPUTER SIMULATION STUDY OF HIGH TCO SUPERCONDUCTING STRUCTURE Southern University	J	N 36 11/12/90 \$393,257	WEINSTOCK 91-NE-030	
PI TITLE: POLYMER SUPERCONDUCTORS University of California	Jahn	N 24 10/10/90 \$410,120	POMRENKE 91-NE-004	

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COGNITIVE-LIKE LEARNING FROM VERBAL INPUTS Univ of Illinois	Boas	FREGLY 91-NL-005	2 35 15/10/90 \$113,154
LANGUAGE COMPREHENSION AS STRUCTURE BUILDING Univ of Oregon	Morton	FREGLY 91-NL-006	5 40 15/10/90 \$286,771
ATTENTION AND PERCEPTIVE OBJECTS IN 3D SPACE Univ of Wisconsin	William	FREGLY 91-NL-010	4 36 24/10/90 \$313,701
SPATIAL ORIENTATION AND ADAPTIVE SENSORY PLANNING BY HUMAN AND MONKEYS Boston University	Stephen	HADJAD 91-NL-013	4 60 24/10/90 \$1,215,799
COMPARISON OF COGNITIVE TEST IN HUMAN SUBJECTS AND HUMAN SUBJECTS Univ of Tennessee	Randall	HADJAD 91-NL-014	2 36 24/10/90 \$291,245
LONG TERM SYNAPTIC PLASTICITY AND LEARNING IN NEURAL NETWORKS Yale University	Thomas	HADJAD 91-NL-019	2 35 13/11/90 \$634,529
MODEL ORGANIZING NEURAL NETWORKS FOR DATA APPLICATIONS TO A PRODUCTION ENVIRONMENT Boston University	Michael	HADJAD 91-NL-022	4 36 24/12/90 \$500,344
THE DIVERSITY OF FORM AND THE DYNAMICS OF TEMPORAL DISCOUNTING Yurduke University	Stavros-Kousmayer Mary Kay	FREGLY 91-NL-023	4 24 07/12/90 \$123,615
COGNITIVE MODELING OF THE HUMAN COGNITIVE PROCESS INFORMATION PROCESSING Yurduke Univ	Richards	HADJAD 91-NL-024	4 50 07/12/90 \$1,434,529

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CELL-ORGANIZING FACTORS IN VISUAL PERCEPTION Univ of Colorado	Hirvay, Jr Lewis	N 23 17/12/90 \$525,380	HADDAD 91-NL-028	
COMPARATIVE ANALYTICAL STUDY OF LINKED AND UNLINKED RELATED POTENTIAL AS CORRELATES OF COGNITIVE PROPERTIES Univ of California	Frederick Jullcock	N 12 15/10/90 \$11,807	A FREGLY 91-NL-007	\$11,807 01/02/91 \$11,807
SIMULTANEOUS METABOLISM OF CHOLINERGIC AND ACETYLCHOLINERGIC COMPOUNDS IN SELECTED BACTERIAL STRAINS Univ of California	Robert Dennis	N 12 17/12/90 \$79,761	CERVENY 91-NL-026	
MOON RESEARCH CONFERENCE ON PINEAL CELL BIOLOGY Univ of Rhode Island	John Martin	N 12 13/11/90 \$5,100	BERRY 91-NL-015	
CONCEPTUAL INVESTIGATION IN CONCEPTS OF SOME SOURCES - EXPERIMENTAL A TO MONITORING Institute for Research in Coordination Academy	Stephen Academy	N 35 07/12/90 \$455,943	HADDAD 91-NL-025	
PATTERN ANALYSIS BASED MODEL OF MASKING BY SPATIALLY INTEGRATED SO UN, SOURCE Univ of State University	Robert Silkey	N 36 04/12/90 \$416,942	A HADDAD 91-NL-021	\$145,500 15/04/91 \$378,500
COMPUTATIONAL AND BEHAVIORAL ANALYSIS OF MULTIMODAL LEAD MAPS National Institute of Health	Joseph Joseph	N 24 13/11/90 \$161,395	HADDAD 91-NL-016	
ORGANIZATION OF THE HUMAN COGNITIVE SYSTEM Univ of Pittsburgh	Robert Robert	N 24 20/11/90 \$182,164	A BERRY 91-NL-020	\$89,296 01/02/91 \$182,164
ORGANIZATION OF THE HUMAN COGNITIVE SYSTEM Univ of Pittsburgh	Robert Robert	N 24 24/10/90 \$182,164	HADDAD 91-NL-012	

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THE ROLE OF CENTRAL NERVOUS SYSTEMS IN INDIVIDUAL AND SELECTIVE ATTENTION Yannick University	Jerry	2 36 05/10/90 \$583,327	HADDAD 91-NL-003	
NUMERICAL MODELLING OF EMITTING FIELDS AND THEIR USE FOR COMPLEX IDENTIFICATION MEASUREMENTS AT HIGH FREQUENCIES King's College (Univ. of London)	Adrian C	4 24 22/10/90 \$99,960	A CERVENY 91-NL-008	\$47,600 01/02/91 \$99,960
ROLE OF THE NEUROPEPTIDE GALANIN ON CHOLINERGIC MECHANISMS IN HIPPOCAMPUS: IMPLICATION FOR ENHANCED MEMORY PERFORMANCE Institute of Neurochemistry, Basel	Silvana	4 36 05/10/90 \$57,200	HADDAD 91-NL-001	
VISUAL MOTION PERCEPTION AND VISUAL INFORMATION PROCESSING New York University	George	2 36 24/10/90 \$543,223	A HADDAD 91-NL-011	\$200,000 01/02/91 \$610,000
ATTENTION, IMAGERY AND MEMORY: A NEUROPSYCHOPHYSIOLOGICAL INVESTIGATION New York University	Samuel	2 36 17/12/90 \$559,440	FREGLY 91-NL-027	
SENS OF MEMORY FOR REPRESENTATION OF VISUAL OBJECTS Harvard University	Daniel	4 24 12/10/90 \$329,312	A FREGLY 91-NL-004	\$191,210 15/02/91 \$389,312

FILE TITLE (CONT.) INSTITUTION	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
THE ASYMPTOTIC THEORY OF THE COLLECTION & TRANSMISSION OF A PULSED ELECTROMAGNETIC WAVE FIELD AT A PLASMA INTERFACE SEPARATE. TWO DISP UNIV OF VERMONT	N 12 01/10/90 \$103,517	A NACHMAN 91-NM-003	\$97,543 01/01/91 \$97,543
APPLIED LINEAR ALGEBRA, CONTROL THEORY, TWO APPLICATIONS OF STABILITY THEORY UNIV OF MINNESOTA	N 36 12/10/90 \$252,809	SJOGREN 91-NM-011	
OUTSTRIP AND OCCLUSIVE PARTITIONING METHODS UNIV OF MINNESOTA	N 36 14/10/90 \$115,404	SJOGREN 91-NM-013	
ASYMPTOTIC AND COMPUTATIONAL TECHNIQUES FOR AMPLITUDE EQUATIONS & PEAK TURBULENCE PHENOMENA UNIV OF ILLINOIS	N 36 23/10/90 \$149,701	NACHMAN 91-NM-019	
KNOWLEDGE-BASED PLANNING AND SCHEDULING ADVANCED COMPUTER SYSTEMS : KNOWLEDGE-BASED PLANNING AND SCHEDULING TECHNOLOGY UNIV OF MARYLAND	N 36 01/11/90 \$732,457	MAKSHAN 91-NM-021	
NEW APPROACHES IN STATISTICAL DESIGN AND ANALYSIS OF SOFTWARE STABILITY TESTING EXPERIMENTS UNIV OF MARYLAND	N 26 05/11/90 \$464,317	SJOGREN 91-NM-024	
A COMPARISON DENSITY FUNCTION APPROACH TO THE K-SIMPLE PROBLEM UNIV OF DELAWARE	N 36 05/11/90 \$161,077	SJOGREN 91-NM-026	
STOCHASTIC CONTROL AND NONLINEAR ESTIMATION UNIV OF MINNESOTA	N 36 03/11/90 \$507,783	JACOBS 91-NM-054	
STOCHASTIC STABILITY IN SYSTEMS THAT CHANGE TYPE UNIV OF MINNESOTA	N 36 03/11/90 \$141,335	NACHMAN 91-NM-057	

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WAVELETS AND SPLITTING NUMERICAL METHODS AND IMAGE COMPRESSION Iowa University	Richard Louise	N 23 03/12/90 \$256,838	NACHMAN 91-NM-062	
NEW TECHNIQUES IN LOCAL SEARCH WITH PATH PLANNING AND IMAGE COMPUTING APPLICATIONS Iowa of Illinois	Yiu Stephen	N 60 03/12/90 \$1,015,563	D JACOB 91-NM-063	
PROBLEMS IN COMPUTATIONAL MECHANICS EMPHASISING VISCOELASTIC MATERIALS AND PARALLEL COMPUTATIONS Iowa of Wisconsin	Markus David	R 36 03/12/90 \$252,150	NACHMAN 91-NM-065	
EXPLICITLY DESTRUCTED AMPLIFY TECHNIQUES FOR LARGE SCALE EIGENPROBLEMS AND LINEAR SYSTEMS Iowa University	Sorenson Denny	N 30 05/12/90 \$309,481	HOLLAND 91-NM-072	
THE NUMERICAL TREATMENT OF MARKOV CHAINS Iowa of Maryland	WILSON Sienna	N 30 12/12/90 \$413,155	SJOBERG 91-NM-081	
MATHEMATICAL MODELLING OF PLASMA PHYSICS Iowa University	Starnheim Natalia	N 36 12/12/90 \$110,020	NACHMAN 91-NM-087	
EFFICIENTLY ADAPTABLE GALERKIN FINITE ELEMENT SCHEMES FOR PARABOLIC PROBLEMS Iowa of Wisconsin	Wang Bruce	N 24 12/12/90 \$65,210	D NACHMAN 91-NM-092	
CONCEPTUAL STRUCTURES AND IMAGE DATA REDUCTION Iowa of Illinois	Indur Narendra	N 12 12/12/90 \$60,000	WAKSMAN 91-NM-097	
REGRESSION AND INTERSECTION OF TRAIL CIRCLES AND AN ALGORITHMIC SUBJECT Iowa University	Shenker Sharon	N 24 12/12/90 \$447,547	GLASSMAN 91-NM-098	

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EFFICIENT AND FLEXIBLE ALGORITHMS FOR DIGITAL SIGNAL PROCESSING IN MULTIPLE INDEPENDENT MODE PARALLEL COMPUTERS Lynch, Inc.	Richard Tolliver	N 36 21/12/90 \$1,312,003	SJOGREN 91-NM-100	
INDUSTRIES OF NONLINEAR SYSTEMS AND CONTROLLERS IN A NOISY ENVIRONMENT UNIV of ARIZONA	Enzo Tie	N 36 27/12/90 \$103,359	JACOBS 91-NM-105	
MULTIVARIATE DATA ANALYSIS: TOOLBOX FACTOR ANALYSIS AND PROJECTION PURSUIT TECHNIQUES UNIV of Delaware	Lidia Rogers	N 36 23/12/90 \$156,657	SJOGREN 91-NM-107	
HOME MATHEMATICAL MODEL AS ASSOCIATED WITH PHASE TRANSITIONS UNIV of Tennessee	Nicholas Alkove	N 24 28/12/90 \$63,495	NACHMAN 91-NM-109	
QUANTUM SPECTRUM ESTIMATION UNIV of Denver	Jin Schroeder	N 12 28/12/90 \$74,241	SJOGREN 91-NM-112	
SOLUTIONS BY ALMOST-PERIODIC BACKGROUND UNIV of Missouri	Friedrich Jespersen	N 36 23/12/90 \$156,304	D NACHMAN 91-NM-113	
GRAY II SUPPORT FOR OTHER SUBSIZED INSTRUMENTS AIR FORCE WEAPONS DIV	Howard Burnette	N 12 09/10/90 \$50,000	A NACHMAN 91-NM-006	\$50,000 01/10/90 \$50,000
MATHEMATICAL ANALYSIS OF CAVITATION AND REACTION Southern Illinois University	Scott Dunlap	N 24 23/12/90 \$10,000	A NACHMAN 91-NM-114	\$5,000 01/11/90 \$5,000
COMBINATORIAL MECHANICS AND SIMPLE LATTICES Georgia Institute of Tech	John Lindholm	N 24 12/12/90 \$352,229	GLASSMAN 91-NM-093	

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STOCHASTIC BOUNDARY ERROR ANALYSIS FOR SOME NUMERICAL ALGORITHMS Stevens Institute of Technology	Calvetti Daniela	N 36 12/12/90 \$144,839	D NACHMAN 91-NM-093	
EFFICIENT ALGORITHMS FOR SOLUTION OF COMPLEX SYSTEMS General Analytic Corporation	Adelman G.	N 24 03/12/90 \$153,520	D NACHMAN 91-NM-068	
APPLIED NONLINEAR PARTIAL DIFFERENTIAL EQUATIONS Los Alamos Natl Lab--Appl Theor Phys Div	Myrin James	N 12 12/10/90 \$100,000	A NACHMAN 91-NM-007	\$100,000 01/12/90 \$100,000
INTEGRATION OF SYMBOLIC AND NUMERICAL METHODS AND THEIR APPLICATIONS IN AI State University of New York	Khour Usrafak	N 36 22/10/90 \$733,670	WAKSMAN 91-NM-014	
ON THE DETERMINATION AND CONSTRUCTION OF ROBUST AND EFFICIENT EXPERIMENTAL DESIGNS Washington State University	Jacroux Michael	N 24 13/11/90 \$103,322	GLASSMAN 91-NM-035	
SWO-MATRIX QUASI-NEWTON MINIMIZATION Washington State University	Hofflin Robert	N 24 21/12/90 \$113,449	GLASSMAN 91-NM-101	
COMPUTATIONAL NONLINEAR CONTROL Univ of California	Kramer Arthur	N 36 05/11/90 \$193,937	JACOBS 91-NM-025	
STUDIES IN EXPLORED OPTIMIZATION Univ of California	James Alan	N 12 13/11/90 \$38,353	GLASSMAN 91-NM-033	
SOLVING ILL-CONDITIONED MATRIX EQUATIONS BY CONTROL Univ of California	Wang Alan	N 24 12/11/90 \$154,258	A JACOBS 91-NM-053	\$93,392 15/06/91 \$175,818

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EVALUATION OF COMMUNICATION FOR DISTRIBUTED POPULATION SOLVING IN POPULATIONS OF ARTIFICIAL NEURAL NETWORKS Univ of California	Michael Over	N 36 13/12/90 \$534,674	JACOBS 91-NM-094	
NONLINEAR OPTICAL RESPONSE OF MULTILAYERED STRUCTURES Univ of Rhode Island	Leonard Kinn	N 36 20/11/90 \$440,714	NACHMAN 91-NM-059	
ADAP SQUARE ERROR REDUCTION THROUGH AD DATA ANALYSIS TRANSFORMATIONS: A NEW PRINCIPAL ELEMENTS REGRESSION METHOD Univ of Notre Dame	Lawrence Marsh	N 24 13/11/90 \$155,266	SJOGREN 91-NM-030	
SECOND ORDER CONFERENCE ON THEORETICAL MECHANICS University of State Univ, Coll of Eng	Colman Bernard	N 01 20/11/90 \$10,000	NACHMAN 91-NM-055	
CONTROL ORIENTED SYSTEM IDENTIFICATION Northwestern University	Jacobson Glas	N 24 23/10/90 \$139,319	JACOBS 91-NM-016	
ALGEBRAIC CONTRIBUTIONS OF PARTIALLY BALANCED CRUSMANN BLOCK DESIGNS Air Force State University	K. APISA	N 35 05/11/90 \$54,097	SJOGREN 91-NM-029	
INTERNAL AND FRACTIONAL PARAMETERS OF A GRAPH Univ of State University	Hard Giles	N 36 13/11/90 \$45,317	GLASSMAN 91-NM-038	
STRUCTURE AND STABILITY OF LAMINAR AND TONIC DEFORMATION PLAMES IN COMPRESSIONAL FLOW IN LAYERS, INCLUDING AERIAL WINGING TECH. Univ of California	Chester Gordon	N 24 13/11/90 \$97,575	NACHMAN 91-NM-040	
STABILITY OF DEFORMED LAMINAR PLAMES IN A STATIONARY POINT FLOW UNIVERSITY OF CALIFORNIA Univ of California	Francis Jackson	N 24 16/11/90 \$49,505	NACHMAN 91-NM-043	\$17,187 01/05/91 \$35,318

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ROBUST HYBRID-TIME AND TIME-VARYING SYSTEM DESIGN Northeastern University	Tadmor Gilead	N 36 20/11/90 \$228,420	JACOBS 91-NM-056	
REGIONAL STABILITY & CONTROL OF NONLINEAR DYNAMICAL SYSTEMS Bright State University	Fu Jyun-Horn	N 36 20/11/90 \$133,992	JACOBS 91-NM-060	
CONTROLLABILITY OF COUPLED TEAMS Bright State University	Ho Lop-Fat	N 12 12/12/90 \$18,136	JACOBS 91-NM-084	
CONTROL THEORY OF NONLINEAR PARTIAL DIFFERENTIAL EQUATIONS WITH APPLICATIONS TO FLUID MECHANICS Bright State University	Svobodny Thomas	N 24 19/12/90 \$64,339	JACOBS 91-NM-089	
POLYHEDRAL METHODS FOR SOLVING LARGE SCALE NETWORK DESIGN PROBLEMS Northwestern University	Chopra Sunil	N 36 21/12/90 \$400,135	GLASSMAN 91-NM-099	
LEARNING INVARIANT TEXTURE CHARACTERISTICS IN DYNAMIC ENVIRONMENTS : A MODEL EVOLUTION APPROACH George Mason University	Pachowicz Peter	N 36 27/12/90 \$179,173	WAKSMAN 91-NM-106	
FAULT-TOLERANT MULTIPROCESSORS AND VLST SYSTEM Univ of Massachusetts	Pradhan Dhiraj	R 36 05/12/90 \$238,703	HOLLAND 91-NM-071	
PHASE SPACE AND FUNCTIONAL INTEGRAL METHODS FOR SCALAR AND VECTOR WAVE PROPAGATION PROBLEMS Colorado School of Mines	Fishman Louis	N 36 28/12/90 \$236,974	NACHMAN 91-NM-110	
INVERSE PROBLEMS IN WAVE PROPAGATION Iowa State Univ of Science and Tech	Sacks Paul	N 24 15/11/90 \$49,771	NACHMAN 91-NM-042	

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DOMAIN DECOMPOSITION FOR MULTIDIMENSIONAL FIRST ORDER SYSTEMS UNIV of Pittsburgh	William	N 36 05/12/90 \$195,022	NACHMAN 91-NM-070	
SOLIDIFICATION PROBLEM WITH FLUID PROPERTIES UNIV of Pittsburgh	James	N 36 12/12/90 \$105,522	NACHMAN 91-NM-080	
JOB R TOLERANCE LIMITS FOR QUALITY DATA UNIV of Cincinnati	Paul	N 24 05/11/90 \$47,047	SJOGREN 91-NM-027	
CONTROL THEORY FOR DISTRIBUTED PARAMETER SYSTEM Princeton University	David	R 24 05/11/90 \$172,491	JACOBS 91-NM-022	
NUMERICAL SOLUTIONS OF CRYSTAL GROWTH Princeton University	John	N 12 12/12/90 \$23,063	A NACHMAN 91-NM-077	\$25,663 01/04/91 \$25,663
STOCHASTIC METHODS IN ENGINEERING Princeton University	Erhan	N 36 12/12/90 \$500,874	SJOGREN 91-NM-095	
MATHEMATICAL LIBRARY SOFTWARE FOR APPLICATIONS OF PARALLEL SUPERCOMPUTERS Princeton University	Steven	N 48 24/12/90 \$1,423,125	NACHMAN 91-NM-100	
PARALLEL SOLUTION OF THE PROBLEM OF PARALLEL DIFFERENTIAL EQUATIONS Michigan State University	David	N 36 03/12/90 \$85,423	NACHMAN 91-NM-067	
NUMERICAL SOLUTIONS OF FIRST ORDER PARTIAL DIFFERENTIAL EQUATIONS UNIV of Washington	James	N 24 12/11/90 \$72,073	GLASSMAN 91-NM-050	

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PARALLEL DECOMPOSITION FOR NETWORK-STRUCTURED SIGNALS	UNIVERSITY OF PENNSYLVANIA	Stavros	N 25 12/19/90 \$10,000	A GLASSMAN 91-NM-012	\$49,259 01/02/91 \$99,132
PULSE PROPAGATION IN RANDOM MEDIA	UNIVERSITY OF PENNSYLVANIA	Warner	R 12 29/10/90 \$49,393	A NACHMAN 91-NM-020	\$49,393 01/05/91 \$49,393
PIRATES Polytechnic Inst & State Univ	UNIVERSITY OF PENNSYLVANIA	Warner	N 35 21/12/90 \$350,005	GLASSMAN 91-NM-102	
PACKING CONVEX AND LOGICAL INFERENCE	UNIVERSITY OF PENNSYLVANIA	Warner	N 36 23/10/90 \$194,593	SJOGREN 91-NM-017	
STOCHASTIC MODELS IN RELIABILITY THEORY	UNIVERSITY OF PENNSYLVANIA	Warner	N 36 07/12/90 \$127,319	D JACOBS 91-NM-074	
State University of New York	UNIVERSITY OF PENNSYLVANIA	Warner	N 36 13/11/90 \$75,000	HOLLAND 91-NM-041	
COMPUTER SCIENCE AND TELECOMMUNICATIONS DATA	UNIVERSITY OF PENNSYLVANIA	Warner	N 36 13/11/90 \$75,000	HOLLAND 91-NM-041	
RESEARCH IN STOCHASTIC PROCESSES AND TO IN APPLICATIONS	UNIVERSITY OF PENNSYLVANIA	Warner	N 36 13/11/90 \$75,000	HOLLAND 91-NM-041	
UNIV of North Carolina	UNIVERSITY OF PENNSYLVANIA	Warner	N 36 13/11/90 \$75,000	HOLLAND 91-NM-041	
METHODS AND DATA ANALYSES OF LARGE SCALE NONLINEAR OPTIMIZATION	UNIVERSITY OF PENNSYLVANIA	Warner	N 36 13/11/90 \$75,000	HOLLAND 91-NM-041	
UNIV of North Carolina	UNIVERSITY OF PENNSYLVANIA	Warner	N 36 13/11/90 \$75,000	HOLLAND 91-NM-041	
LOCALIZATION AND TRACKING OF TARGETS IN A CLUTTERED ENVIRONMENT	UNIVERSITY OF PENNSYLVANIA	Warner	N 36 13/11/90 \$75,000	HOLLAND 91-NM-041	
UNIV of North Carolina	UNIVERSITY OF PENNSYLVANIA	Warner	N 36 13/11/90 \$75,000	HOLLAND 91-NM-041	

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MATHEMATICAL THEORY OF JUNCTION NETWORKS Butlers - The State University	Sontag	N 35 12/12/90 \$391,542	JACOB5 91-NM-085	
ANALYSIS AND REGULATION OF NONLINEAR SYSTEMS Butlers - The State University	Sontag	N 36 21/12/90 \$272,695	JACOB5 91-NM-103	
APPLICATIONS OF WAVELIKE THEORY Air Force Institute of Technology	Jeter	N 12 03/10/90 \$46,500	A SJOGREN 91-NM-005	\$46,500 15/10/90 \$46,500
INVESTIGATION OF THE DYNAMIC SHAPING AND RANDOM VIBRATION OF A COMPOSITE CYLINDRICAL SHELL INCLUDING HIGHER ORDER SHEAR THEORY Air Force Institute of Technology	Salasotto	N 24 03/11/90 \$131,600	NACHMAN 91-NM-023	
PERFORMANCE EVALUATION AND MODELLING OF HARD AND HARD MULTICOMPUTERS Ayrshire University	Box	N 24 03/12/90 \$426,343	NACHMAN 91-NM-073	
DIFFERENTIAL GEOMETRIC METHODS IN FLOW THEORY Univ of Connecticut	Ravishanker	N 36 03/12/90 \$120,000	SJOGREN 91-NM-064	
APPLIED MATHEMATICAL PROBLEMS IN MODERN ELECTRODYNAMICS The Jaxter Institute of Technology	Gregory	N 26 13/12/90 \$105,517	NACHMAN 91-NM-036	
FREE BOUNDARY PROBLEMS FOR INVISCID FLOWS WITH VORTICITY Richards State University	Alpert	N 12 12/10/90 \$24,032	A NACHMAN 91-NM-008	\$24,032 01/01/91 \$24,032
DISCONTINUOUS SOLUTIONS FOR MULTIDIMENSIONAL CONSERVATION LAWS West Virginia University	Li	N 25 16/11/90 \$123,511	NACHMAN 91-NM-045	

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HYBRID INTELLIGENT SYSTEMS AND THEIR APPLICATIONS TO AUTONOMOUS TARGET IDENTIFICATION AND INTELLIGENT ROBOT CONTROL Florida State University	Kaniel Abraham	N 36 03/12/90 \$451,743	WAKSMAN 91-NM-061	
CYCLE COVER, INTEGER FLOW AND COLORING--RESEARCH IN GRAPH THEORY West Virginia University	Chang Guan-guan	N 36 03/12/90 \$50,023	GLASSMAN 91-NM-066	
CRACK PROPAGATION IN LINEAR AND NONLINEAR VISCOELASTIC MATERIAL Texas A and M University	Hilton Jay	N 36 12/12/90 \$149,792	NACHMAN 91-NM-079	
EDGE AND TOTAL COLOURINGS, IMBEDDING THEOREMS, AND K-T-O-1 MAPS -- RESEARCH IN GRAPH THEORY West Virginia University	Hilton Anthony	N 24 12/12/90 \$97,173	GLASSMAN 91-NM-042	
SOME MATHEMATICAL PROBLEMS ASSOCIATED WITH PHASE TRANSITIONS Princeton Univ. University	Atiyah Peter	N 24 2/12/90 \$73,503	NACHMAN 91-NM-104	
NONLINEAR DYNAMICAL SYSTEMS IN MECHANICS AND BIOLOGY Cornell University	Holmes Phillip	N 36 01/10/90 \$1,377,251	NACHMAN 91-NM-004	
SYMMETRY METHODS AND NONLINEAR ANALYSIS IN ELASTOMECHANICS Cornell University	Holmes Timothy	N 36 20/11/90 \$232,342	NACHMAN 91-NM-059	
OPTIMAL SHAPE DESIGN FOR NONLINEAR SYSTEMS Harvard University	Yiu Siu-yu-Tung	N 36 12/12/90 \$527,157	HOLLAND 91-NM-078	
AMPLITUDE-SCALE APPROACH TO OBJECT RECOGNITION Indiana University	Hinton Andrew	N 36 12/12/90 \$375,072	WAKSMAN 91-NM-096	

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FREE BOUNDARY PROBLEMS AND DYNAMICAL TURBULENCE ASSOCIATED WITH
FLAMES
Indiana University-Purdue Univ at Indiana

INVESTIGATOR

Michael

FRANKEL

TYPE/MONTHS
RECEIVED
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N 36
13/12/90
\$121,132

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91-MM-090

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CONCURRENT PROCESSES IN STARS IN STRONG RADIATION FIELDS Univ of Maryland	McClintock	N 26 09/10/90 \$297,700	A KELLEY 91-NP-005	\$85,800 01/02/91 \$85,800
MANY-BODY EFFECTS IN MOLECULAR DYNAMICS SIMULATIONS ARI International	Hickman	N 36 10/10/90 \$242,483	LUPU 91-NP-006	
MOLECULAR DISSOCIATION DYNAMICS IN THE PRESENCE OF INTENSE OPTICAL FIELDS Univ of Maryland	Kelley	N 36 13/10/90 \$449,730	KELLEY 91-NP-009	
PARTICLE BEAMS FOR DEFENSE Culham Laboratory	John	P 20 13/11/90 \$925,206	LUPU 91-NP-018	
STUDIES OF A COMPLEMENT SYSTOLIC SOURCE OPERATING AT THE SECOND AND THIRD HARMONIC OF THE FUNDAMENTAL FREQUENCY Univ of Maryland	Victor	P 12 14/11/90 \$60,000	A BARKER 91-NP-020	\$60,000 15/03/91 \$60,000
INTERACTION OF ELECTROMAGNETIC FIELDS WITH MAGNETIZED PLASMAS Univ of Tennessee	J. Reese	P 36 19/11/90 \$236,850	A BARKER 91-NP-022	\$102,770 01/04/91 \$236,860
CLUSTER IMPACT REGION PRODUCTION ARI International	Young	N 36 04/12/90 \$619,734	BARKER 91-NP-024	
PARTICLE BEAMS FOR DEFENSE Culham Laboratory	Roy	P 12 12/12/90 \$511,543	A LUPU 91-NP-028	\$511,543 01/02/91 \$1,556,597
MOLECULAR ELECTRIC DIPOLES IN A GRID FIELDS (OCT-DEC-90) ARI International	Reynolds	N 36 13/12/90 \$449,189	KELLEY 91-NP-030	

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COHERENT COOPERATIVE RADIATION IN SOLIDS				
Univ of Michigan	Stephan	R 36 17/12/90 \$574,715	SCHLOSSBER 91-NP-031	
QW-LOCKED LASERS FOR NARROW BAND QW/QWV APPLICATIONS				
ATI International	Gregory	N 39 18/12/90 \$346,332	SCHLOSSBER 91-NP-033	
INELASTIC ELECTRON COLLISIONAL PROCESSES (140051)				
Univ of Wisconsin	Chun	N 35 19/12/90 \$579,762	KELLEY 91-NP-035	
PROVIDE COMPUTING SUPPORT ON AL TAY SUPERCOMPUTER TO AFOSR CONTRACTOR, DR HARVEY MICHELS, UNITED TECHNOLOGY RESEARCH CENTER Air Force Weapons Lab				
QW LASER TECHNOLOGY FOR PRECISION MEASUREMENTS IN HYDROGEN, ANTI- HYDROGEN, AND HELIUM				
National Inst. of Standards & Technology	Thomas	N 30 18/10/90 \$63,500	KELLEY 91-NP-008	\$10,000 10/10/90 \$10,000
STABILIZED SINGLE-FREQUENCY OPERATION OF VISIBLE DYE LASERS, HIGH RESOLUTION SPECTROSCOPY, AND MICROGRAVITY-TO-VISIBILITY SYNTHESIS				
National Inst. of Standards & Technology	John	N 11 24/10/90 \$50,000	A SCHLOSSBER 91-NP-011	\$50,000 01/11/90 \$100,000
THEORETICAL AND QM STUDIES OF THE ELECTRONIC STRUCTURE OF METAL/ SEMICONDUCTOR HETEROJUNCTION SYSTEMS				
Stevens Institute of Technology	Walter	N 12 20/12/90 \$27,898	A LUPU 91-NP-036	\$27,898 15/03/91 \$27,898
GROWTH AND CHARACTERIZATION OF NONLINEAR OPTICAL SOLID STATE LASER MATERIALS (AG-91-2-127)				
Belmont State Univ--Center for Laser Resch	Richard	N 20 10/12/90 \$451,091	SCHLOSSBER 91-NP-027	
INVESTIGATIONS OF ENERGY TRANSFER AND QUANTUM TRANSPORT IN NANOSTRUC- TURED CRYSTALS				
Air Force Wright Laboratories Lab	Kenneth	N 12 05/10/90 \$60,000	A SCHLOSSBER 91-NP-004	\$60,000 01/10/90 \$110,000

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IONIZING COLLISIONS IN AN INTENSE LASER FIELD SAINT FRANCIS XAVIER UNIVERSITY	Willbank Barry	N 36 01/10/90 \$112,000	KELLEY 91-NP-003	
ATOMIC AND MOLECULAR PROCESSES IN SUPER-INTENSE FIELDS AND IONIZED GASES Los Alamos Nat'l Lab--Appl Theor Phys DV	Ailonna Peter	N 36 01/10/90 \$675,000	KELLEY 91-NP-001	
SPACETIME PHYSICS (ADDRESS-637) Los Alamos Nat'l Lab--Appl Theor Phys DV	Willner Warner	N 12 04/12/90 \$582,000	LUPU 91-NP-025	
NONRADIATIVE RELAXATION AND GAIN DYNAMICS IN SOLID STATE LASER MATERIALS City College - CUNY	Ailano Robert	N 36 13/11/90 \$416,116	SCHLOSSBER 91-NP-019	
ELECTRON IMPACT IONIZATION IN THE NEAR THRESHOLD REGION Univ of North Texas	Bolton David	N 36 22/10/90 \$394,620	KELLEY 91-NP-010	
INTENSE FIELD HIGH-ORDER HARMONIC GENERATION Lawrence Livermore Lab (Calif Univ)	Kulander Kenneth	N 24 12/12/90 \$346,000	KELLEY 91-NP-029	
ORGANIZATION OF THE 1991 OPTICAL SOCIETY OF AMERICA PHOTOGRAPHIC SCIENCE TOPICAL MEETING SERIES Optical Society of America	Allen Jarvis	R 12 21/12/90 \$125,000	A SCHLOSSBER 91-NP-037	\$125,000 01/03/91 \$125,000
NONLINEAR OPTICAL PROPERTIES OF POLYMERS & APPLICATIONS TO HIGH-POWER INTERMODULATORY DEVICES Univ of West Florida	Wong M.	N 36 05/11/90 \$414,269	SCHLOSSBER 91-NP-015	
FUTURE DIRECTIONS FOR LASERS IN MEDICINE AND CONSUMER ENVIRONMENT Food and Drug Administration	Davidson David	N 11 30/10/90 \$2,000	A SCHLOSSBER 91-NP-014	\$2,000 01/11/90 \$2,000

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PHYSICS AND APPLICATIONS OF COHERENTLY COUPLED PHASE CONJUGATORS AND CHI-TAO GRATINGS (SC61339) Rockwell International, Science Center	McMichael Ian	R 36 10/12/90 \$824,392	SCHLOSSBER 91-NP-026	
INNOVATIVE SCIENCES TECHNICAL EXPERIMENTATION CENTER Eastern Space & Missile Center	Kennedy Mike	N 12 25/10/90 \$23,000	A LUPO 91-NP-013	\$1,085,000 01/10/90 \$29,000
THE PHYSICS OF SPIN-POLARIZED GASES Princeton University	Happer William	R 36 15/11/90 \$393,560	A KELLEY 91-NP-021	\$281,280 01/03/91 \$281,280
THEORETICAL STUDIES OF PHOTON-ATOM/NEGATIVE ION COLLISIONS Univ of Central Florida	Saha Hari	N 24 17/12/90 \$107,582	KELLEY 91-NP-032	
INDIUM MONO-ION OSCILLATOR Univ of Washington	Wajourney Warren	N 36 27/11/90 \$410,870	KELLEY 91-NP-023	
1991 GORDON CONFERENCE ON ATOMIC PHYSICS Gordon Research Conferences Inc	Cook William	N 12 13/12/90 \$10,000	KELLEY 91-NP-034	
VOLUME RENDERING OF MULTI-DIMENSIONAL PHYSICS DATA Air Force Institute of Technology	Styre Martin	N 36 24/10/90 \$255,750	LUPO 91-NP-012	
OPTICAL METROLOGY OF MAGNETICALLY TRAPPED HYDROGEN Massachusetts Institute of Technology	Kleppner Daniel	R 12 17/10/90 \$126,000	A KELLEY 91-NP-007	\$126,000 01/02/91 \$126,000
ANTINEUTRON STUDIES IN PRIMING TRAPS Harvard University	Goodman Harold	P 24 05/11/90 \$513,400	A KELLEY 91-NP-016	\$258,400 01/03/91 \$518,400

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LASER-INDUCED CHEMICAL REACTIONS FOR PROFOUND SURFACE PREPARATION OF ALUMINIUM ALLOYS Technion--Israel Institute of Technology	Zanavi	N 12 21/11/90 \$32,500	A OWENS 91-EX-002	\$32,500 01/03/91 \$32,500
SOLAR MILLIMETER RADIO Centro de Radio-Astronomia e Aplicacoes	Kaufmann	N 24 24/10/90 \$50,000	A OWENS 91-EX-001	\$25,000 01/02/91 \$50,000

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UNIVERSITY RESIDENT RESEARCH PROGRAM (URRP) Univ of Dayton	Davidson	N 12 13/11/90 \$95,996	A BOLAND 91-X0-005	\$95,996 01/02/91 \$127,996
UNIVERSITY RESIDENT RESEARCH PROGRAM (URRP) Univ of Dayton	ASOK	N 12 20/11/90 \$44,990	A BOLAND 91-X0-006	\$44,990 01/01/91 \$60,656
UNIVERSITY RESIDENT RESEARCH PROGRAM (URRP) Univ of California	COOKER	N 12 03/10/90 \$101,229	A BOLAND 91-X0-001	\$101,229 01/10/90 \$101,229
AFIT SCHOOL OF ENGINEERING SYMPOSIUM BUSINESS Air Force Institute of Technology	McDonald	N 12 25/10/90 \$12,500	A OWENS 91-X0-002	\$12,500 01/10/90 \$12,500
AFIT SCHOOL OF ENGINEERING SYMPOSIUM AIRBORNE Air Force Institute of Technology	McDonald	N 12 25/10/90 \$2,500	A OWENS 91-X0-003	\$2,500 01/10/90 \$2,500
USAF BASIC RESEARCH BOARD Air Force Institute of Technology	McDonald	N 12 01/11/90 \$1,000	A OWENS 91-X0-004	\$1,000 01/11/90 \$1,000