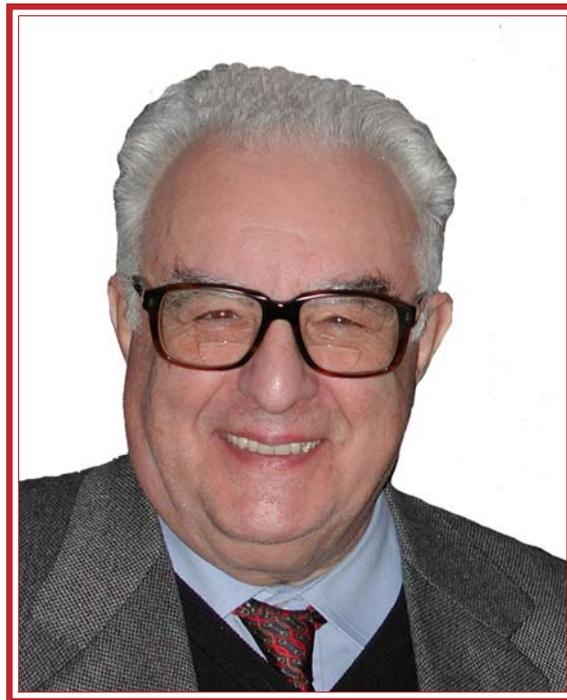


# ENRICO CLEMENTI



*A man of many talents, many interests,  
and many more friends*



The Organizers of the 2005 Sanibel Symposium are pleased to dedicate the Friday sessions and dinner to Enrico Clementi.

Session

Plenary XV

Jan Linderberg, Chair  
Michel Dupuis  
Paul S. Bagus  
Giorgina Corongiu

Plenary XVI

Kersti G. Hermansson, Chair  
Alain Strich  
Antonio Rizzo  
Kwang Soo Kim

Plenary XVII

Michael Kasha, Chair  
William A. Lester, Jr.  
Jean-Marie André  
Enrico Clementi

Cocktails on the Lawn at 7:00 PM

Seafood Buffet at 8:00 PM

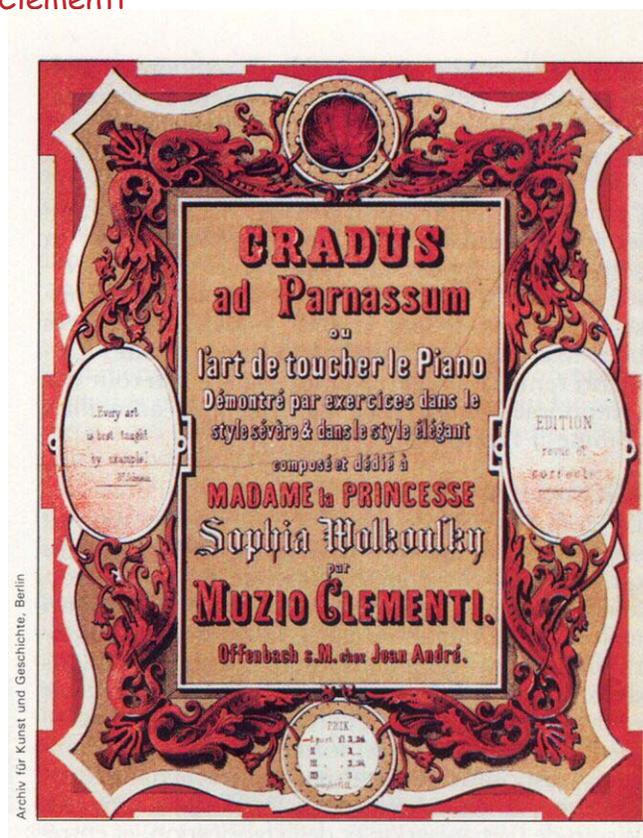
Michael Kasha, after dinner speaker

Open microphone for all who wish to say  
a few words about Enrico

Private showing of Enrico's paintings

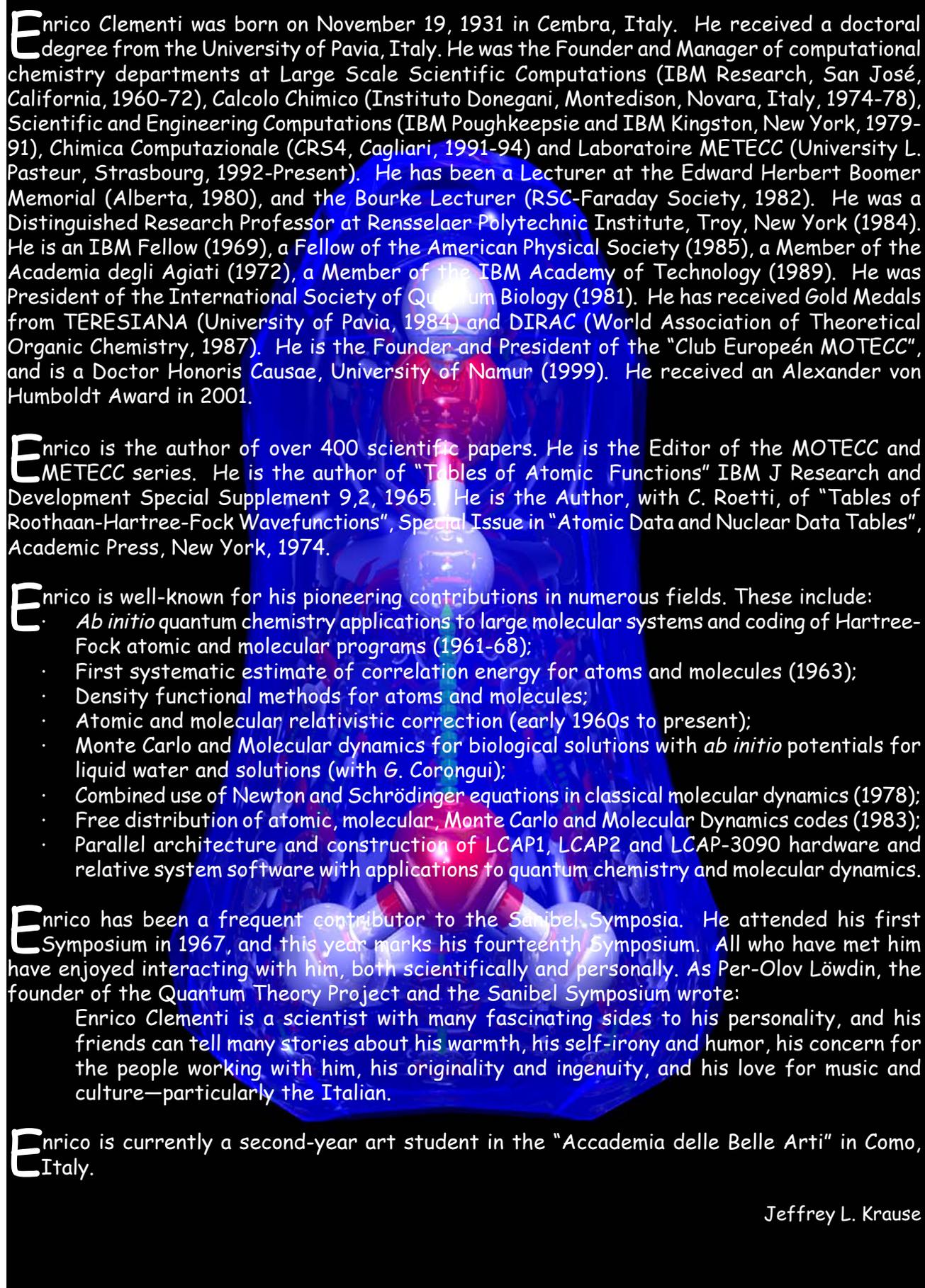
Music of Muzio Clementi  
performed by  
Jean-Marie André  
and  
Frank Harris

Our thanks to all those who contributed  
pictures and anecdotes,  
without which this booklet could never  
have been compiled.



Booklet Designed and Produced  
by Judy Parker





Enrico Clementi was born on November 19, 1931 in Cembra, Italy. He received a doctoral degree from the University of Pavia, Italy. He was the Founder and Manager of computational chemistry departments at Large Scale Scientific Computations (IBM Research, San José, California, 1960-72), Calcolo Chimico (Istituto Donegani, Montedison, Novara, Italy, 1974-78), Scientific and Engineering Computations (IBM Poughkeepsie and IBM Kingston, New York, 1979-91), Chimica Computazionale (CRS4, Cagliari, 1991-94) and Laboratoire METECC (University L. Pasteur, Strasbourg, 1992-Present). He has been a Lecturer at the Edward Herbert Boomer Memorial (Alberta, 1980), and the Bourke Lecturer (RSC-Faraday Society, 1982). He was a Distinguished Research Professor at Rensselaer Polytechnic Institute, Troy, New York (1984). He is an IBM Fellow (1969), a Fellow of the American Physical Society (1985), a Member of the Accademia degli Agiati (1972), a Member of the IBM Academy of Technology (1989). He was President of the International Society of Quantum Biology (1981). He has received Gold Medals from TERESIANA (University of Pavia, 1984) and DIRAC (World Association of Theoretical Organic Chemistry, 1987). He is the Founder and President of the "Club Européen MOTECC", and is a Doctor Honoris Causae, University of Namur (1999). He received an Alexander von Humboldt Award in 2001.

Enrico is the author of over 400 scientific papers. He is the Editor of the MOTECC and METECC series. He is the author of "Tables of Atomic Functions" IBM J Research and Development Special Supplement 9,2, 1965. He is the Author, with C. Roetti, of "Tables of Roothaan-Hartree-Fock Wavefunctions", Special Issue in "Atomic Data and Nuclear Data Tables", Academic Press, New York, 1974.

Enrico is well-known for his pioneering contributions in numerous fields. These include:

- *Ab initio* quantum chemistry applications to large molecular systems and coding of Hartree-Fock atomic and molecular programs (1961-68);
- First systematic estimate of correlation energy for atoms and molecules (1963);
- Density functional methods for atoms and molecules;
- Atomic and molecular relativistic correction (early 1960s to present);
- Monte Carlo and Molecular dynamics for biological solutions with *ab initio* potentials for liquid water and solutions (with G. Corongui);
- Combined use of Newton and Schrödinger equations in classical molecular dynamics (1978);
- Free distribution of atomic, molecular, Monte Carlo and Molecular Dynamics codes (1983);
- Parallel architecture and construction of LCAP1, LCAP2 and LCAP-3090 hardware and relative system software with applications to quantum chemistry and molecular dynamics.

Enrico has been a frequent contributor to the Sanibel Symposia. He attended his first Symposium in 1967, and this year marks his fourteenth Symposium. All who have met him have enjoyed interacting with him, both scientifically and personally. As Per-Olov Löwdin, the founder of the Quantum Theory Project and the Sanibel Symposium wrote:

Enrico Clementi is a scientist with many fascinating sides to his personality, and his friends can tell many stories about his warmth, his self-irony and humor, his concern for the people working with him, his originality and ingenuity, and his love for music and culture—particularly the Italian.

Enrico is currently a second-year art student in the "Accademia delle Belle Arti" in Como, Italy.

Jeffrey L. Krause

When I got to meet [Enrico] in 1990 he was in a very "delicate" moment of his life, mostly traveling back and forth (which is something not unusual), involved in discussions with officials here and there in view of another big "change" in his life (from IBM to CRS4). It was not easy to pin him down and have sufficient time to "build up" anecdotes on him. His spectacular typical north-Italian cakes come to my mind (he is very skilled in cooking, as far as I remember, especially cakes). I can tell you that a moment I cannot forget was when I landed in Kingston and after a few days, when he finally could settle for a few hours in his office, he took me for a "tour" of his "computa-



tional facilities" at IBM. And, in awe, I realized he was probably showing to me as much computer power as my entire COUNTRY could boast at the time. At least, that was what it sounded and looked to me. Finally, I can tell you that staying in Enrico's department (and I was there for exactly one year) I believe I met most of the big names and personalities of my (and his) field of research, all of them coming through the corridors of IBM Kingston. It was a fundamental experience of my life, probably the most important for the development of an independent career made of exchanges and confrontation with the whole international community and not limited to the little backyard.

CIAO

**Antonio Rizzo**

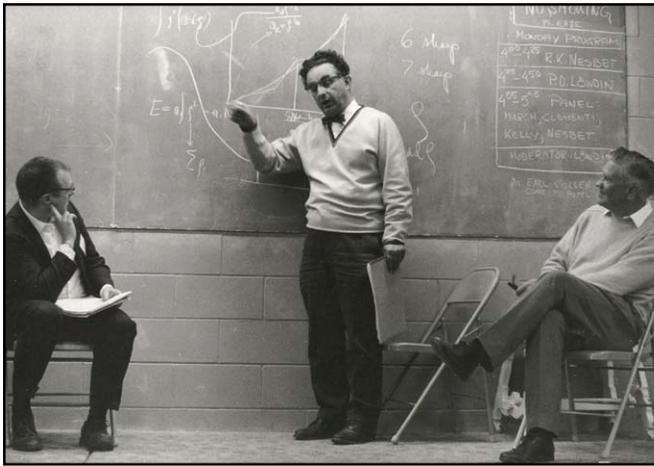


Sanibel 1983

Colin Thomson, Janos Ladik, Maureen Thomson, Enrico Clementi  
[Photo by John Ball]

Enrico went to paris, rented a mercedes, wrecked it, returned, rented another one, and wrecked that one too. I can't recall if they gave him a third after that or not...

Best Regards,  
Rod Bartlett



1970 Sanibel Symposium  
 Hugh Kelly, Enrico Clementi, and  
 Per -Olov Löwdin  
 [Photo by Nelson H.F. Beebe]

Enrico Clementi:  
 "You have to solve a  
 problem, right? If you have  
 to become a mathematician or  
 an engineer to solve the problem,  
 so what? The last thing the piece of  
 paper that is a Ph.D. should tell you is  
 what field you're in; it should tell you only  
 that you can learn. You have to pull up  
 your sleeves and do something real."

(THINK, no. 4, 1985, p. 26)

1968, San Jose  
 Christian et Lucette Salez, their  
 son, Eric, and Enrico  
 [Photo from J.M. André]



As he talks about his  
 work with growing en-  
 thusiasm, his Italian accent  
 becomes progressively more  
 pronounced.

'It can be worse,' he quips"  
 (THINK, no. 4, 1985)

"A round-  
 faced, round  
 figured man  
 wrapped in a loosely  
 fitting black sweater,  
 Enrico Clementi, one of  
 IBM's most distin-  
 guished scientists,  
 resembles a cheerful  
 panda as he settles  
 into his office at  
 the company's  
 Kingston, N.Y.  
 lab.



2002 Sanibel Symposium  
Tom Collins, Jean-Marie André and Enrico  
[Photo from J.M. André]

"I cannot refrain from pinpointing the [Löwdin quote in the biography] and from making the relation to another CLEMENTI. I am thinking of the famous musician and pianist, Muzio CLEMENTI, who was born in Rome in 1752 and died in Evesham, Worcestershire, in 1832. Muzio and Enrico Clementi have been never resting travelers. Every debutant pianist has always played some of Muzio's sonatas. Muzio is well known for his whole piano work and is known as 'father of the piano.'

I can safely say that Enrico is the father of 'Modern Computational Techniques in Chemistry.' The first time that I visited the most beautiful residence of Enrico in Los Gatos I had the unique chance to listen to one of the very rare recordings of Muzio CLEMENTI's piano concerto. My aim is not to give an introduction of Muzio CLEMENTI's contribution, but it is striking to note that Muzio CLEMENTI is the composer of Gradus Ad Parnassum, one set of difficult exercises enabling the pianist to overcome the main problems.



April 2004, Atlanta  
Jean-Luc and Monique Brédas, Jean-Marie and Marie-Claude André and Enrico  
[Photo from J.M. André]

From this point of view, there is a clear parallel with Enrico CLEMENTI's career and his progressive evolution, his progressive 'gradus ad parnassum' from atoms, molecules, and molecular interactions to his rich concept of the 'global simulation method.'"

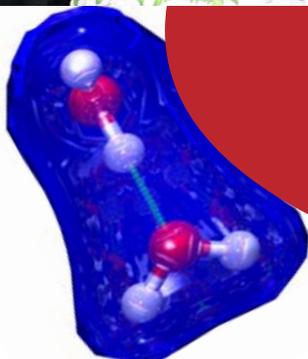
Jean-Marie André  
International Journal of Quantum Chemistry,  
45, 507-510 (1993)



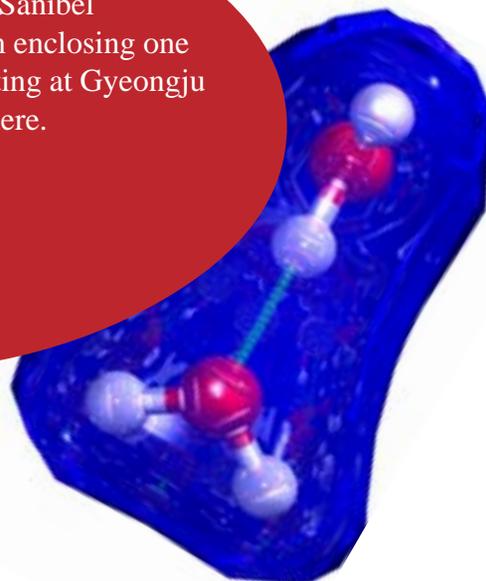
2002 Sanibel Symposium  
Enrico and Jean-Marie André  
[Photo from J.M. André]



For the celebration of Clementi in Sanibel meeting,... I am enclosing one (in TACC meeting at Gyeongju in Feb, 2004) here.



With Best Regards,  
Kwang S. Kim



Unfortunately I have to change work just in the time of the conference, therefore I regret not to be able to participate. I would like to send my best greetings to Enrico Clementi and I

hope to see him in another time. I wish you and the other participants a nice conference.

Very recently I visited Clementi at the lake of Como and I append some pictures we did make there.

With best wishes,  
Detlef Hofmann



I do have some very stories providing very deep perspective on a person who is not just a great and outstanding scientist but romantic with science and a mentor par excellence to his collaborators.

I worked with him between 1987-1990 and continue to hold him as my best teacher and mentor. I would like to share my stories about him in gratitude and in the form of a prayer of thanks to the man who has taught and helped me in the art of research.

Warm Regards

Subhas



Kimio Ohno and Enrico, Stresa  
[Photo from J.M. André]

1983 - Poughkeepsie  
Family party with Enrico's laboratory at J.-M. André's home  
[Photo from J.M. André]



2002 Sanibel Symposium  
Enrico Clementi and  
Benôit Champagne  
[Photo from J.M. André]



1992, Namur  
SCF Meeting for the 60th  
Birthday of Enrico  
[Photo from J.M. André]



2004, Georgia Tech Conference  
for J.M. André's 60th Birthday  
[Photo from J.M. André]



He was invited with Gina, it was a beautiful day of summer 25 years ago on a wonderful alpine lake and a perfect dinner was served; I wanted to [sit] with them, as with any other guest, for a while, with a big difference: we kept talking for almost two hours about theoretical chemistry, research and research plans: my husband told me that he understood that day what work addiction means and what would have been his life with a scientist.

Best regards

Graziella Ranghino



I can not make it to the conference.  
Please send my love to Gina and Enrico.

I worked in Enrico's group 1981-83 in  
Poughkeepsie NY.

It was my first time in America, in non-  
American Italian/ International atmo-

sphere. The pictures are from a party in Enrico's home, none of my many  
American managers ever did anything equivalent, and from my wedding here Enrico and  
Gina attended.

Very Best Wishes,  
Peter Habitz



Enrico Clementi

1983,  
Poukeepsie



Gina Corongiu

I first met Enrico when he came to St. Andrews to give a Royal Society of Chemistry lecture and receive a medal, the name of which escapes me now.

"You must come to IBM for a few months - it will be good experience," he said.



2003, Como  
Enrico cooking in his apartment  
[Photo from J.-M. André]

Not being much of a traveler and not having much money, I hoped the whole thing would be forgotten. Before I knew it, I was flying over Ireland, jettisoning fuel so we could land for the plane to be checked for a bomb. I arrived in Poughkeepsie twelve hours late in the middle of the night and after a phone call Enrico was there to pick me up.

He took me back to his house and poured me the most enormous whiskey: "You drink and in the morning you will be fine no jet-lag, nothing." Gosh! But he was absolutely right! right!

I stayed with Enrico and Gina (poor Gina - another mouth to feed and clean up after) until I got my first pay cheque.

Talking to Enrico is a wonderful experience: the enthusiasm, the vision, the stories!

He is a truly magnificent man or person and Gina comes in at a very close second - but only because it is Enrico's day. If it wasn't, then Gina would be first, of course.



This is a photo of Prof. Vercauteren from Namur in Belgium and Dr Carravetta from Pisa in Italy eating the Boss's Apple Strudel. Prof. Clementi's Apple Strudel takes some beating!

Best wishes, John Ball.



Enrico and John Ball  
[Photo from J. Ball]



2004, Gyeongju Meeting  
Enrico and R.A. Marcus  
[Photo from J.-M. André]



Christmas 1984  
Enrico and  
Kersti Hermansson  
[Photo by John Ball]



The first time I met Prof. Clementi was at the 2002 Sanibel Symposium, which I attended with my then-significant-other, Amanda Godwin. Prof. Öhrn insisted that I meet Prof. Clementi, and introduced us at the Wednesday reception. After shaking hands and exchanging the common introductory phrases, Prof. Clementi said to me "I have noticed you. I have noticed your work. But more importantly, I have noticed your girl."

So much for Bucky-Balls.....

Ryan Chancey



[Photo QTP Archives]

With remarkably good luck, I have found the original photograph that Megumu Yoshimine sent to me in 1995.

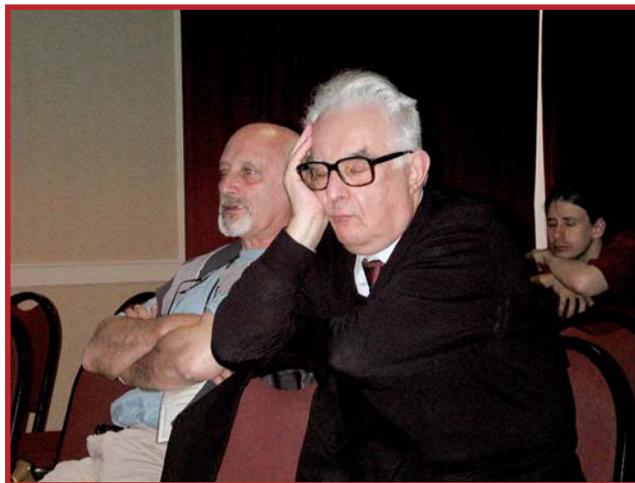
Since Enrico Clementi hired at IBM Research all the people in the picture and since we formed the core of the quantum chemistry group outside the IBMOL project that Enrico organized, I am pretty sure that he will enjoy the picture. According to the letter that Megumu sent me, the picture was taken in 1970 near a restaurant in Los Gatos called the Villa Felice by Prof. Kimio Ohno who was visiting IBM from Hokkaido University.

Regards,

Paul Bagus



From left to right, the people in the picture are:  
Doug McLean, retired. The last e-mail address that I have for Doug is [jmclean@jps.net](mailto:jmclean@jps.net)  
Megumu Yoshimine, Deceased.  
Bowen Liu, Deceased.  
Bill Lester, Chemistry, U.C. Berkeley [walester@cchem.berkeley.edu](mailto:walester@cchem.berkeley.edu)  
I am on the far right.



A long day at the 2002 Sanibel  
Piet Van Duijnen, Enrico Clementi, and  
Tom Henderson  
[Photo from QTP Archives]

*Produced by  
Quantum Theory Project  
Departments of Chemisty and Physics  
University of Florida*

