

Mahir Hussein's legacy to science



The early years: Int. Physics Symposium Sao Paulo, 1971

* Not interested on new technology from Volkswagen

Mahir Hussein short bio

Education

- 1965, BS, Baghdad University
- 1971, PhD, MIT (advisor: Arthur Kerman)



Employment

- 1972 - 2007, physics professor, University of São Paulo
- Visiting professor at zillion institutions in the U.S., Europe and Japan.

Presently

- Coordinator of Nuclear Astrophysics group, IEA, U. of São Paulo.
- Affiliated Professor at Michigan State University

Honors

- Guggenheim Fellow, 1987- 1988
- M. Gutzwiller Fellow, Max Planck Inst. Dresden, 2007- 2008
- Brazilian Academy of Sciences, 2000
- TWAS World Academy of Sciences, 2005

Mahir Hussein teaching & advising

Courses taught

1972 - 2007: 64 semester courses taught at the University of Sao Paulo

1994 - 1995: 1 MIT semester course on "Symmetry Breaking in Fundamental Interactions"

MS students

Tsun Yuen Chen (1983), Fulvio Almeida (1983), Maria Cecilia Salvadori (1984), Marcelo Saad (1984), Fernando Alcantara (1997), Patricia Teles (2006), Debora Andrade (2009).

PhD students

Mauricio Pato (1978), Ricardo Rego (1984), Vera Lucia Franzin (1987), Maria Herminia Tavares (1987), Roberto Nascimento (2007).

Postdocs

Brett Carlson (1981), Manabu Ueda (1997), Oleg Vorov (1998), Adam Sargeant (2000), Tatiana Taruntina (2001), Walter Cardenas (2003).

Mahir Hussein Service in Student Committees

Committee Member of MS Thesis

Ronaldo Franzin (1980), **Rubens Lichtenthaler** (1981), Alfredo Salvetti (1981), Rosane Margaritelli (1985), Nilson Oliveira (1988).

Committee Member of PhD Thesis

Eduardo Wilner (1972), Iuda Goldman (1973), M. Carolina Nemes (1977), Ewa Cybulska (1978), Victor Hanin (1978), Alfredo Galeão (1980), Maria Luiza Cescato (1980), Marcos Martins (1982), Nelson Fiedler (1983), **Tobias Frederico** (1984), Alfredo Salvetti (1986), Gastão Krein (1987), Milton Isidro (1987), Antonio Villari (1987), Luiz Gonzaga Ferreira (1988), **Rubens Lichtenthaler** (1988), Leandro de Paula (1989), Nemitalla Added (1991), Carlos da Rocha (1993), Ana Breitschchaft (1996), Heyder Hey (1996), Ailton Cassettari (1997), Pupitpallab Chaudhuri (1999), Victor dos Santos (2001), Renata Pradini (2002), Francis Gutiérrez (2003), Paulo Sa Pires (2004), **Marcelo Yamashita** (2004), Dimas Romano (2007).

Mahir Hussein Service in Career Promotion

Committee Member of Promotion to Professor (Titular)

Sadhan Adhikari (1991), Antonio Figueiredo (1993), Alfredo Salvetti (1981) Oscar Eboli (1999), Adilson da Silva (1999), Celso Grebogi (2000), Nami Fux Svaiter (2005), Carlton Taft (2005).

Committee Member for Search and Promotion

Madhavarao Rao (1998), Paulo Pascholati (1998), Wayne Seale (1998), Renata Funchal (1995), Fernando Brandt (2004), Luis Abramo (2004), Frederique Grassi, (2001), Manuel Robilotta (1993), Carlos Escobar (1992), Helio Dias (1988).

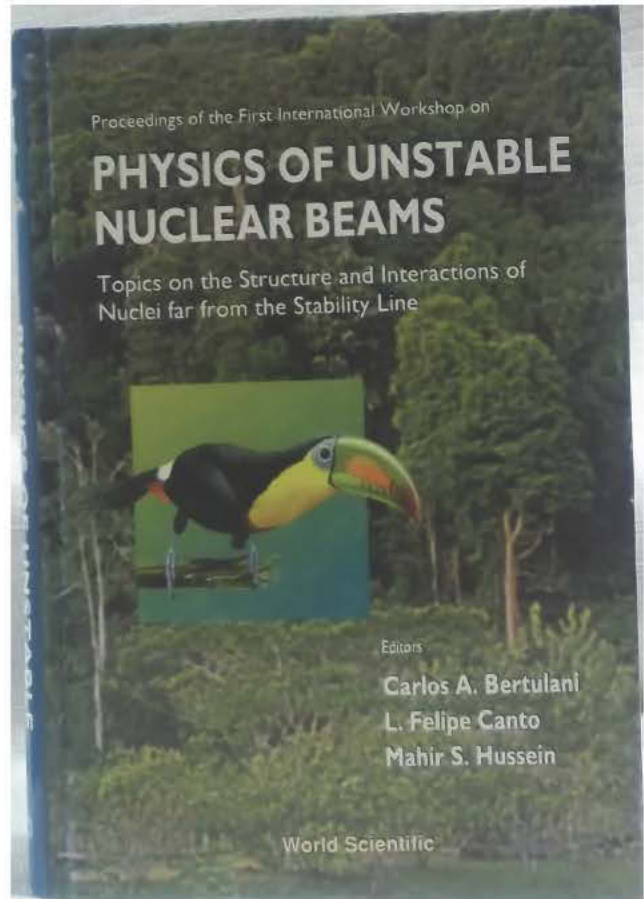
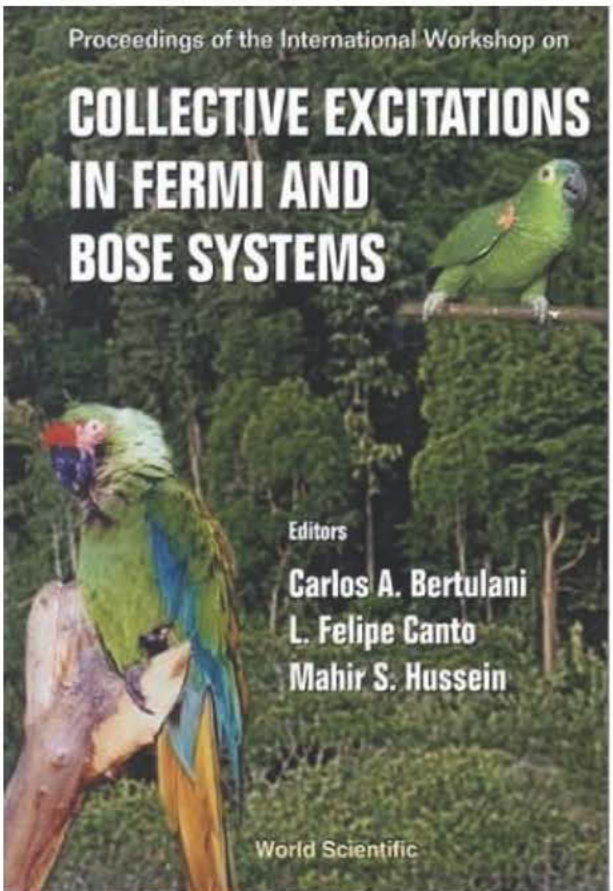
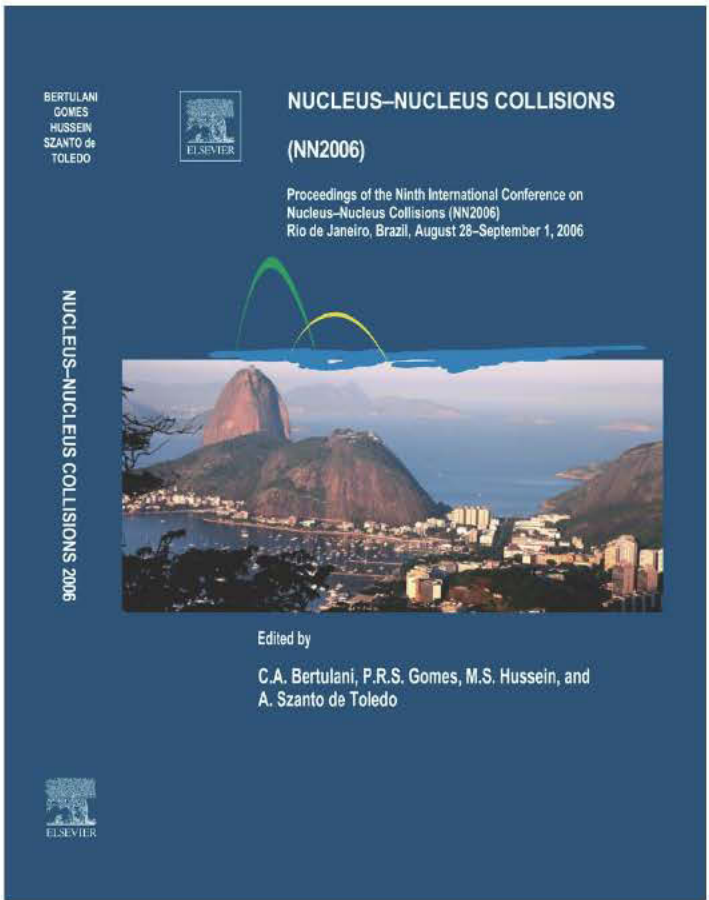
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Several search committees nationwide

Mahir Hussein Event Organization

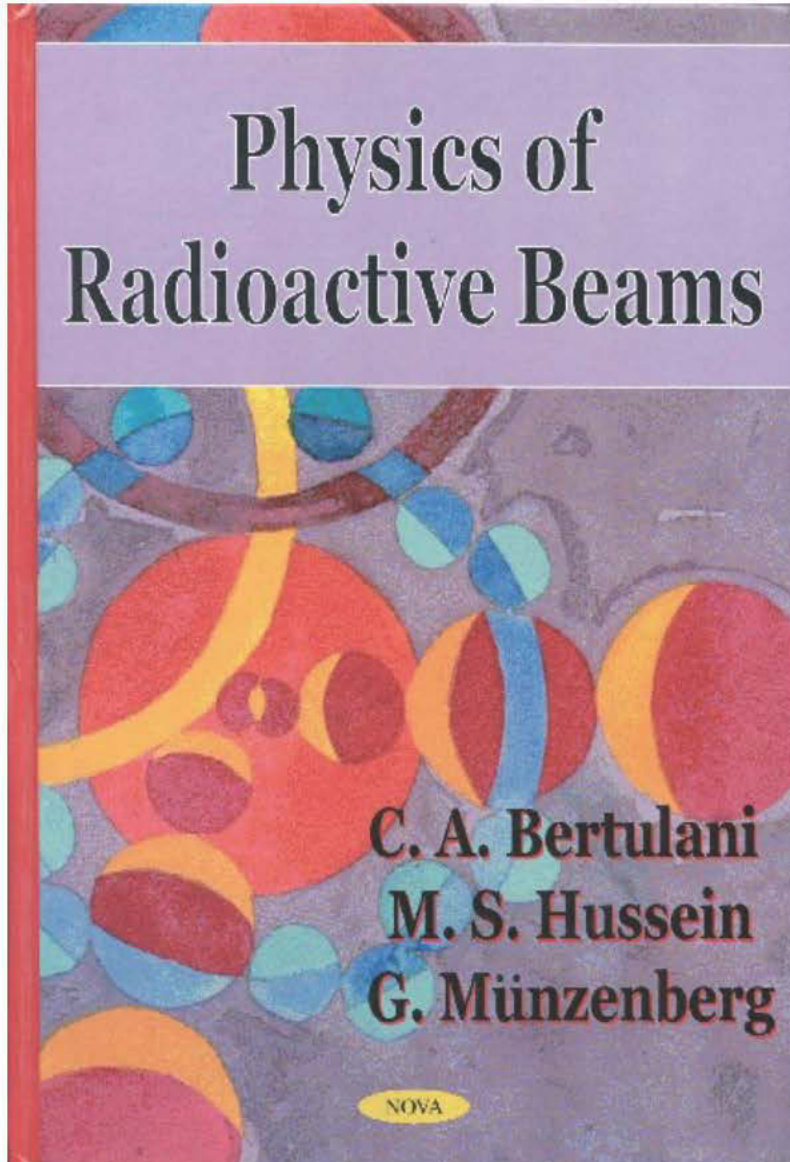
- Dilling, Hussein, et al. International Nuclear Physics Conference. 2009.
- Bertulani, Schatz, Hussein, Pan American Advances Studies Institute-PASI. 2009.
- Hussein, Chaos and Collectivity in Mant-Body Systems. 2008.
- Esbensen, Hussein, et al. New Aspects of Heavy Ion Collisions Near the Coulomb Barrier (Fusion08). 2008.
- Thompson, Hussein, et al. Interfacing Structure and Reactions at the Centre of the Atom (Kernz08). 2008.
- Zhu, Hussein, et al. The 10th International Conference on Nucleus-Nucleus Collisions (NN 2009).
- Nagamiya, Hussein, International Nuclear Physics Conference- INPC 2007.
- Hussein, Toledo, Gomes, Bertulani, IX International Conference on Nucleus-Nucleus Collisions. 2006.
- Corradi, Hussein, FUSION 2006.
- Jonson ; Hussein, Lepine-Szily . International Nuclear Physics Conference- INPC 2004.
- Takigawa, Hussein, FUSION 2003.
- Bertulani, Hussein, Collective Excitations in Fermi and Bose Systems. 1998.
- Bertulani, Canto, Hussein,. Physics of Unstable Nuclear Beams. 1996.
- Moniz, E. J. , Kerman, A. K. , Hussein, M. S. . PANIC 1990.
- Sala, Piza, de Toledo, Hussein, Toledo, International Nuclear Physics Confer.- INPC 1989.

Mahir Hussein Event Organization Sample

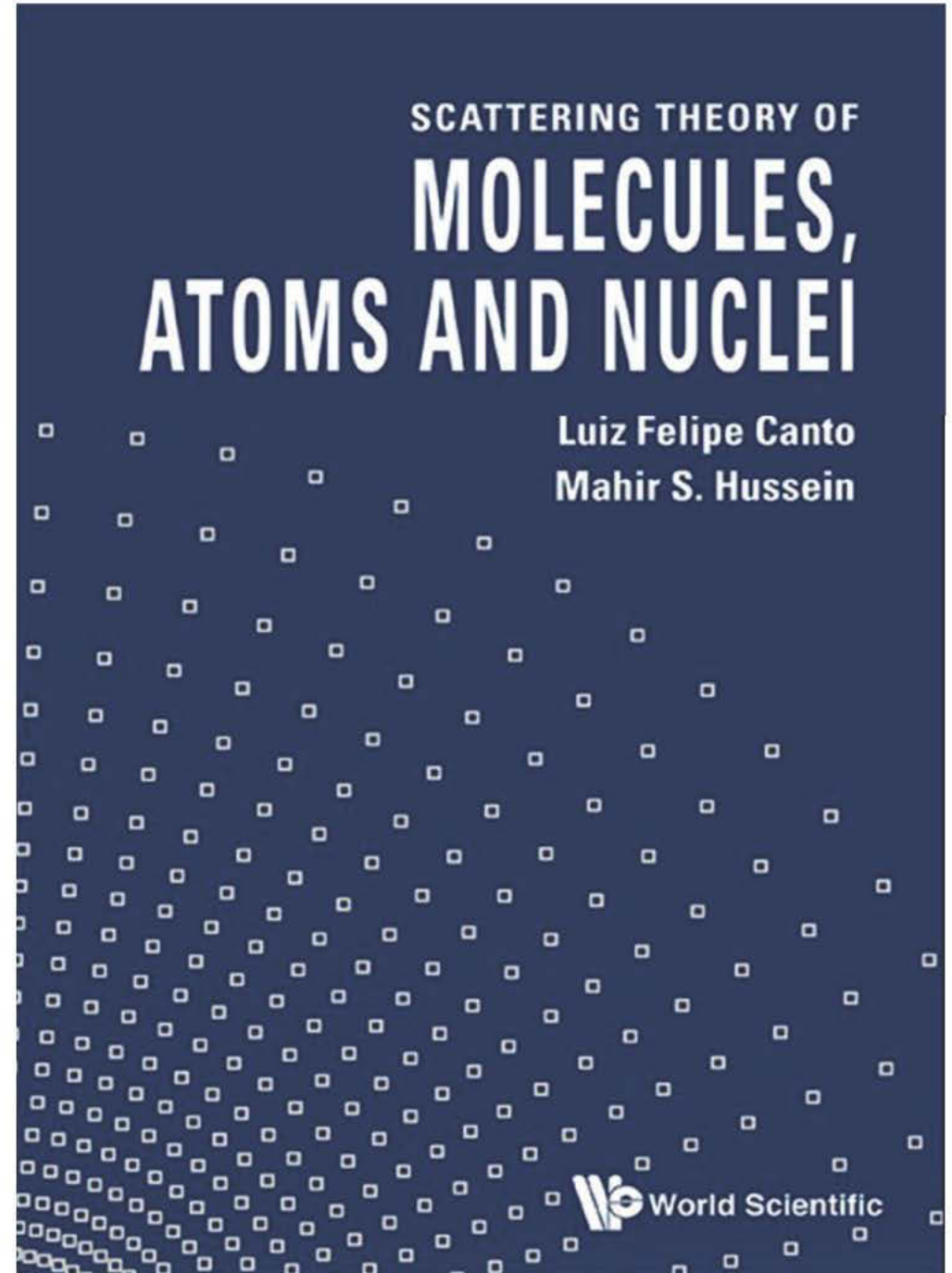


+ others

Mahir Hussein TextBooks Sample



+ others



Mahir Hussein Research Publications

340+ PUBLICATIONS

- 71 Letters in Phys. Rev. Lett. and Phys. Lett.
- 10 Physics Reports

MAIN RESEARCH INTERESTS

Nuclear Theory

Laser driven Accelerators

Random Matrices and Quantum Chaos

Bose-Einstein Condensates

Symmetry Breaking of Fundamental Interactions

Buckyball collisions

Atom-atom collisions

Hybrid condensates

Nuclear Astrophysics

Mahir Hussein Most Cited Publications

Timmermans, E. ; Tommasini, P. ; Hussein, M. S. ; Kerman, A. K. . **Feshbach resonances in atomic Bose-Einstein condensates**. Physics Reports, 315, 199 (1999).

Canto, L. F. ; Gomes, P. R. S. ; Donangelo, R. ; Hussein, M. S. **Fusion and breakup of weakly bound nuclei**, Physics Reports, 424, 1 (2006).

Chamon, L C ; Carlson, B. V. ; Gasques, L. R ; Pereira, D. ; De Conti, C. ; Alvarez, M A G ; Hussein, M. S. ; Ribeiro, M. A. C. ; Rossi, E. S. ; Silva, C. P. **Toward a global description of the nucleus-nucleus interaction**. Phys. Rev. C 66, 014610 (2002).

Timmermans, E. ; Tommasini, P. ; Côté, R. ; Hussein, M. S. ; Kerman, A. K. **Rarified liquid properties of hybrid atomic-molecular Bose-Einstein condensates**. Phys. Rev. Lett. 83, 2691 (1999).

Chamon, L C ; Pereira, D. ; Hussein, M. S. ; Cândido Ribeiro, M. A. ; Galletti, D. **Nonlocal Description of The Nucleus-Nucleus Interaction**. Phys. Rev. Lett. 79, 5218 (1997).

Bertulani, C. A. ; Canto, L F ; Hussein, M. S. **The structure and reactions of neutron-rich nuclei**. Phys. Rep., 226, 281 (1993).

Hussein, M. S., Rego, R. A., Bertulani, C. A. **Microscopic theory of the total reaction cross-section and application to stable and exotic nuclei** . Phys. Rep. 201, 279 (1991).

Mahir Hussein 70 years



Thank you Mahir for all you have done **for us**.

Your collaborators & friends

Santos, Brazil, 2014