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Diagnostics for mechanical heating in star-forming galaxies

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Publications

1. **M. V. Kazandjian**, I. Pelupessy, R. Meijerink, F. P. Israel, M. J. F. Rosenberg, M. Spaans “Constraining Cloud Parameters Using High Density Gas Tracers in Galaxies”, (submitted)
2. **M. V. Kazandjian**, I. Pelupessy, R. Meijerink, F. P. Israel, M. Spaans “CO and ^{13}CO Emission Map Construction for Simulated Galaxies”, (submitted)
3. **M. V. Kazandjian**, R. Meijerink, I. Pelupessy, F. P. Israel, M. Spaans “Diagnostics of the Molecular Component of Photon-dominated Regions with Mechanical Heating. II. Line Intensities and Ratios”, 2015, *A&A*, 574, A127, 33
4. M. J. F. Rosenberg, **M. Kazandjian**, P. P. van der Werf, F. P. Israel, R. Meijerink, A. Weiss, M. A. Requena-Torres, and R. Gusten “Radiative and Mechanical feedback into the molecular gas of NGC 253”, 2014, *A&A*, 564, A125, 12
5. **M. V. Kazandjian**, J. R. Touma, “The Doubling of Stellar Black Hole Nuclei”, 2013, *MNRAS*, 430, 1, 2732-2738
6. **M. V. Kazandjian**, R. Meijerink, I. Pelupessy, F. P. Israel, M. Spaans, “Diagnostics of the Molecular Component of PDRs with Mechanical Feedback”, 2012, *A&A*, 542, A65, 26
7. J. R. Touma, S. Tremaine, **M. V. Kazandjian**, “Gauss’s Method for Secular Dynamics, Softened”, 2009, *MNRAS*, 394, 2, 1085-1108

Curriculum Vitae

I was born on a sunny spring day on the 6th of April 1983 in Beirut, Lebanon, where I was raised with my brother in an Armenian and Lebanese community. I attended Armenian schools until I graduated from high school. Being the son of two electronics experts, I grew up around lots of gadgets and machines, where I learned and fed my curiosity about my surroundings.

I spent one year of self-studying physics before joining university in 2001, after which I joined the American University of Beirut as a physics major sophomore student. During my second year, I met Prof. Jihad Touma, my future mentor, with whom I worked as a research assistant on the stellar dynamics of star clusters around super-massive black holes. I graduated with a BSc degree in 2006. I continued working on my undergraduate project for my MSc thesis that I defended on the summer of 2008. The title of my masters thesis was "m=1 instabilities in near Keplerian potentials". From 2008 to 2010, I worked as a research assistant at the American University of Beirut, after which I joined Leiden Observatory for my PhD degree under the supervision of Prof. Frank Israel and Dr. Rowin Meijerink. The topic of my PhD project, presented in this thesis, is "Diagnostics for Mechanical Heating in Star-forming Galaxies". I attended several conferences and meetings on Galactic Dynamics, Radiative transfer, turbulence in the ISM, and high-performance computing in The Netherlands, USA, Germany and Cyprus and I presented part of my work in the 68th Dutch Astronomy Conference in Belgium.

I started working in industry as scientific software engineer as a consultant at Shell Project and Technology in Rijswijk on April 1, 2014, which is currently my daily occupation. But I still work on galactic dynamics and interstellar medium as side projects.

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Finally, I dedicate this thesis to my parents, Houda Ziedan and Vatche Kazandjian to whom I owe my love and passion to learning, science, maintaining high standards, and perseverance in trying to achieving perfection.