

The Hendrik van de Hulst Centennial Symposium

The Interstellar Medium of Galaxies: Status and Future Perspectives

November 5–9, 2018, Leiden

The 100th birthday of Henk van de Hulst presented an opportune moment to take stock of our understanding of the structure, composition, origin and evolution of the interstellar medium of galaxies over cosmic times and chart the future of research in this area. The interstellar medium plays a central role in the evolution of galaxies as the repository of stellar ashes and the birth sites of new stars. Stars in their turn set their environment aglow through their radiation and shape their surroundings with their powerful winds and explosions. This energetic interaction gives rise to multiple ionized, atomic, and molecular phases that interact and interchange material on rapid time scales. A variety of surveys have probed these phases over the years. At the microscopic level, small dust grains and large molecules play an important role in the physics and chemistry of the ISM. These species also provide convenient tracers of the structure of the ISM. Over the last two decades, the Spitzer Space Telescope and the Herschel Space Observatory have opened up the infrared sky to surveys of the ISM. With ALMA on line, JWST on the horizon, and SKA turning into reality, the ISM of galaxies can be probed out to high redshifts. This can be expected to provide much new insight in the evolution of the ISM over the history of the Universe.

Against this backdrop, 100+ participants discussed the physics, origin and evolution of the ISM of galaxies. The participants came from all over the world – some 20+ countries were represented – to listen to 7 keynote presentations kicking off the different sessions and, together, overviewing the field and setting it in the perspective of astronomy. Each keynote presentation was followed by a number of reviews – 25 in total – that reviewed the specific aspects of the sessions' topic. The oral program was rounded by 18 contributed talks, presenting current topics of great interest and, in that way, provided a cross cut of the activity within the field. Two poster sessions completed the program. The Wednesday afternoon was devoted to a special session – organized by Tim de Zeeuw and Johan Bleeker – in which Henk van de Hulst's legacy to the field of the interstellar medium of galaxies were highlighted by a number of former students and colleagues.

The conference was held at the Boerhaave museum in the heart of Leiden and this greatly aided to the success of the meeting. The intimate atmosphere of the conference room provide an atmosphere congenial to discussions and exchange of ideas. The opportunity to walk through the – hands-on – exhibits also helped the relaxed atmosphere. Just measured by the stimulating discussions, but actually by all means, the conference was a great success.

The program was put together by a Scientific Organizing Committee of renowned experts in a number of email exchanges and telecons. The local organization was in the extremely capable hands of Marjan Balkenstein aided by Kim Emig. Together, in the words of many a participant, they made this conference a unique experience.

The conference was made possible by generous contributions from the Royal Netherlands Academy of Arts and Sciences, KNAW, The Leids Kerkhoven Bosscha Fonds, LKBF, the Nederlandse Onderzoekschool Voor Astronomie, NOVA, and Leiden Observatory.

Scientific Organizing Committee

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