PREFACE

Chile hosts many astronomical observatories equipped with instrumentation covering a wide range of the electromagnetic spectrum, from decametric to the visible wavelengths. The millimeter wavelengths allow detection of the emission originating from the first photons after the decoupling era bearing the signal of the formation of the earliest structures in our universe, and are also suitable for the study of the cold universe. The near- and mid- infrared bands allow scientist to look at the formation of new solar system and new planets. New telescopes with larger collecting areas, including instrumentation to observe in the mid- to far- infrared, will allow observation of the oldest, and therefore the farthest, structures of the universe, with unprecedented detail. They will also provide direct detection of exoplanets and study the constituents, thermodynamics, and dynamics of their atmospheres.

The installation of all these astronomical facilities in Chile have been possible due to efficient matching between the geographic location of the central and northern parts of Chile and the global and regional atmospheric circulation patterns. These regions enjoy clear, transparent, and highly stable atmospheric conditions. This natural condition has been complemented with an adequate policy to support the installation of international centers for astronomical research within the territory of Chile, as well as the development, with the participation of all interested parties, of environmental policy to preserve the quality of the night sky, avoiding light pollution.

Over the many years since the mid-19th century, scientists from all over the world have partnered with Chilean collaborators to explore the territory to identify and monitor the local atmospheric conditions of places that offer the conditions that best match the scientific goals and instrumentation of new astronomical facilities. One of the first groups to arrive in Chile with astronomical instrumentation was the Naval Observatory of Washington DC (USA) mission, led by Lieutenant James M. Gillis. The mission was to detect observations of Venus and Mars, and by means of these observations a more accurate determination of the distance from Earth to the Sun was obtained (Quintana & Salinas 2004, Revista Universitaria, Pontificia Universidad Católica de Chile, 83, 53). Lieutenant Gillis arrived in Valparaíso (Chile) on October 25th, 1849.

On December 2010, with the support of two of the most recent large aperture astronomical observatory projects, the Thirty Meter Telescope (TMT) and the European Extremely Large Telescope (E-ELT) and the endorsement of the Chilean Commission for Science and Technology Research (CONICYT), a conference to share the databases and the results of the most recent atmospheric studies for the identification of sites for the deployment of astronomical facilities was held in Valparaíso (Chile). This conference counted with the enthusiastic support of its organization from the academic staff, researchers and students at the Universidad de Valparaíso. More information on the influences for the organization of this conference and the list of members composing the scientific and local organizing committees is given in the summary paper (Otárola, Curé, Marín & Sarazin).

To our knowledge, this becomes the first conference in the specific topic of Site Testing held in Chile. It took place in the historical harbor city of Valparaíso, the port of arrival of the first modern astronomical mission to Chile. Valparaíso is also the town where Pablo Neruda (1971 Nobel in Literature) had one of his most visited houses, *La Sebastiana*, where he became inspired to write some of his most celebrated poems. Neruda, as well as many astronomers and site testers, found inspiration in the night sky.

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Editors of the proceedings

POEMA, POETRY, BY PABLO NERUDA

...y vi de pronto
el cielo
desgranado
y abierto,
planetas,
plantaciones palpitantes,
la sombra perforada,
acribillada
por flechas, fuego y flores,
la noche arrolladora, el universo.

Y yo, mínimo ser,
ebrio del gran vacío
constelado,
a semejanza, a imagen
del misterio,
me sentí parte pura
del abismo,
rodé con las estrellas,
mi corazón se desató en el viento.

...and suddenly I saw
the heavens
unfastened
and open,
planets,
palpitating plantations,
shadow perforated,
riddled
with arrows, fire and flowers
the winding night, the universe.

And I, infinitesimal being,
drunk with the great starry
void,
likeness, image of
mystery,
I felt myself a pure part
of the abyss,
I wheeled with the stars,
my heart broke loose on the wind.