



The Holy See

**ADDRESS OF THE HOLY FATHER JOHN PAUL II
TO A GROUP OF ASTRONOMERS AT THE CONFERENCE
ON "CIRCUMSTELLAR POLARIZATION"**

Tuesday, 16 June 1987

Dear Friends,

I am indeed pleased to welcome you to the Vatican and to thank you for your presence at the *Conference on Circumstellar Polarization* to which the Vatican Observatory has invited you. It is always a pleasure to know that the Church, through the Observatory, is able to contribute in some way to the continuing quest for a deeper understanding of the universe in which we live.

You have been engaged during these days in collaborative evaluation of the results obtained from observations extending from radio waves to X-rays of some of the most interesting types of variable stars that are known to astronomers. I am told that some of these are very dense and have immense magnetic fields, and are actually accumulating matter from companion stars. Others are pulsating as they try to adjust to unstable conditions in their supply of energy. Still others represent some of the highest temperature stars known or stars which are actually in the process of being born. I am further informed that these stars have in common the fact that at least some radiation which they emit is polarized. Through various techniques which you have developed to observe that light, you are able to obtain information which has proved very useful for the understanding of stellar evolution and especially of the evolution of binary stars.

2. You seek to understand these objects which you observe by a simplification and unification of the information available the fundamental physical processes which are taking place. As we speak of this process of unification, so fundamental to your science, we are reminded of the commemoration we celebrate this year of the three hundredth anniversary of the publication of Isaac Newton's *Philosophiae Naturalis Principia Mathematica*, whereby the one fundamental law of gravity explained the myriad observations of motions accumulated over the centuries. This event is surely one of the most celebrated examples of the success of the quest for unification,

which is characteristic of your scientific pursuits. We are quite aware that this quest is not ended and that you continue to search both for a wider and more profound application to your astronomical data of the fundamental physical laws you already know and also for even more fundamental unifying physical laws. 3. This quest for unification, characteristic of the physical sciences you pursue, is as it were a general law of human endeavour, with a particular application also in the field of religious experience. From my most immediate predecessors beginning especially with Pope John XXIII the Church has received a heritage which is very dear to me: that of fostering unity among all the followers of Jesus Christ, and that of promoting understanding and dialogue with the followers of other religious traditions. Among the initiatives taken to forward this quest, I would mention the encounter of prayer for peace held at Assisi last year, when religious leaders, Christian and non-Christian, gathered in friendship and prayed in their respective ways for the divine gift of peace for a world that sorely needs it. I pray that you too will always be men and women of peace and human solidarity. May Almighty God, the vastness of whose creative work you constantly examine and study, grant you success in your many worthy endeavours to serve mankind. May God's love fill your hearts and may his blessings descend in abundance upon you and your families.

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