#### **ABSTRACTS**

#### **INVITED LECTURES**

# SPECTROSCOPY AS A TOOL FOR DETECTION OF SUPERMASSIVE BINARY BLACK HOLES

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Spectroscopy can be very useful in detection of super-massive binary black holes. Here we will discuss the possible emission of gas around binary black hole, and consider the changes in spectra (narrow and broad spectral lines) due to the existence of such objects.

# VIRTUAL ATOMIC AND MOLECULAR DATA CENTER – VAMDC AND AOB NODE. PRESENT STATUS AND PERSPECTIVES

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Virtual Atomic and Molecular Data Center (<a href="http://www.vamdc.eu">http://www.vamdc.eu</a>, VAMDC), an European Union funded FP7 project with the objective to create a secure, documented, flexible and interoperable e-science environment-based interface to existing atomic and molecular data, will be presented in this review. It will also provide a forum for dissemination and training of potential users.

Project leader is Marie-Lise Dubernet from Observatoire de Paris and core consortium is made of 15 institutions with 24 scientific groups from France, Serbia, Russia, England, Austria, Italia, Germany, Sweden and Venezuela.

The VAMDC facilities will be first of all useful for Astronomy, Plasma science, Atmospheric Science Radiation science and Fusion community as well as Industries using technological plasmas and Lightning industry and will represent a powerful tool for a better and easier search for the needed atomic and molecular data and an efficace data mining.

The participants of AOB (Astronomical Observatory – Belgrade) VAMDC Node are: Milan S. Dimitrijević, Luka Č. Popović, Andjelka Kovačević, Darko