

Seminarium Astrofizyczne

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ul. Pasteura 7, sala 404

<https://www.gotomeet.me/NCBJmeetings/seminarium-astrofizyczne>

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*Co-evolution of dust, stars and metals in quiescent galaxies over
the last 6 billion years*

Quantifying changes in galaxies' interstellar medium (ISM) abundance after quenching star formation is one of the crucial aspects of galaxy evolution, but it is almost unconstrained beyond the local universe. In this seminar I will present the results of the first study that quantified the evolution of ISM in individual quiescent galaxies observed at intermediate redshifts. Throughout the seminar I will focus on showcasing the complex relations between the key tracers of galaxies' ISM (such as specific dust mass) with the quenching time, stellar age and galaxy size. I will further discuss how

our observational data can be understood within the theoretical framework. In particular, I will show that both observations and state-of-the-art simulations (e.g. SIMBA) strongly suggest diverse pathways for prolonged dust formation, or removal on various timescales after quenching star formation. The implications of this result will be discussed in the context of the future synergy between the JWST and ALMA observations.

*Serdecznie zapraszam,
Agnieszka Majczyna*