




Third Trilateral International Workshop on Energetic Particle Physics

November 7 - Discussion

Online event: November 7 – 10, 2022

November 8th 2022

November 8 - Discussion

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|-------|---|---|---------------|
| 08:00 | CLT-K hybrid simulations of EP interaction with tearing modes <i>zoom-FSN-7 - vc, zoom FSN videoconference</i> | Zhiwei Ma | 08:00 - 08:30 |
| | Global Alfvénic modes excitation in Ohmic Tokamak plasmas following magnetic reconnection events <i>Artur Kryzhanovskyy</i> | | |
| 09:00 | Simulations of EP transport in rotating RMPs <i>zoom-FSN-7 - vc, zoom FSN videoconference</i> | Tongnyeol Rhee  | 09:00 - 09:30 |
| | Coffee & Tea Break <i>zoom-FSN-7 - vc, zoom FSN videoconference</i> | | 09:30 - 09:40 |
| 10:00 | Energetic particle nonlinear equilibria and transport processes in burning plasmas <i>zoom-FSN-7 - vc, zoom FSN videoconference</i> | matteo Valerio falessi  | 09:40 - 10:10 |
| | Gyrokinetic study of co-existing Alfvén Eigenmode and microturbulence in KSTAR <i>zoom-FSN-7 - vc, zoom FSN videoconference</i> | Kyungjin Choi | 10:10 - 10:40 |
| 11:00 | Physics basis and research plan of the Divertor Tokamak Test facility <i>zoom-FSN-7 - vc, zoom FSN videoconference</i> | Flavio Crisanti  | 10:40 - 11:20 |
| | Day - 2 Discussion (G.Y. Fu, H. Jhang, F. Zonca) <i>zoom-FSN-7 - vc, zoom FSN videoconference</i> | | 11:20 - 11:30 |

The 2nd day of Trilateral WS

- EP $\triangleleft \triangleright$ 3D-field (MHD) interaction

- EP – (N)TM: Relevant to reactor/DTT conditions
 - Improve generalized Rutherford Eq? Final fate of TM and TAEs in saturated states?
- EP – RMP: More relevant to ITER; something more than the prompt loss?

- AE excitation and AE $\triangleleft \triangleright$ Turbulence interaction

- 3D MHD simulations: AW excitation from reconnection. Seeding process for NTM? Kinetic effect?
- GK simulation initiated. Saturation problem.
- Interpretation of AE \leftrightarrow turbulence interaction: \rightarrow (1) Multiple of four wave interaction (2) stochastic process?

- Searching for the best reduced model capturing scaling separation and the 1st principle physics

- PSZS evolution
- (Conservative GF)

- DTT research plan: declare to open to outside!

- Core is set by SOL/edge conditions? Can we do something more by heating/CD mix?
- High density with high EP contents \rightarrow possibly be connected to the NTM story
- SOL turbulence study in high heat flux conditions