



The University of Sistan & Baluchestan

Partially ordered acts

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1. The category of S -posets

- ▶ Limits and colimits in **Pos-S**
- ▶ Products and coproducts
- ▶ Equalizers, coequalizers, pullbacks, and pushouts
- ▶ Subequalizers, subcoequalizers, subpullbacks, and subpushouts
- ▶ Epimorphisms
- ▶ Monomorphisms

- ▶ Adjoint relations of S -posets with posets
- ▶ Adjoint relations of S -posets with sets
- ▶ Adjoint relations of S -posets with S -acts
- ▶ Regular projectivity
- ▶ Free versus projective S -posets

2. Order congruences on S -posets

- ▶ Pseudoorders and characterizations
- ▶ Homomorphisms

3. Flatness properties of S -posets

- ▶ One-element S -posets
- ▶ Rees factor S -posets
- ▶ Completely simple pomonoids and their S -posets
- ▶ Absolutely flat band-posets

4. Strongly flat and po-flat S -posets

- ▶ Strongly flat
- ▶ po-flat

5. On flatness properties of cyclic S -posets

- ▶ Flatness of cyclic S -posets
- ▶ Some characterization of ordered monoids by cyclic S -posets

6. Indecomposable, projective and flat S -posets

- ▶ The decomposition of S -posets
- ▶ Projective in **S-POS**
- ▶ I-Regularity in **S-POS**
- ▶ Flatness in **S-POS**

7. Generators in the category of S -posets

- ▶ Generators
- ▶ Cyclic projective generators