Special Issue

Mechanics, Damage Properties and Impacts of Coal Mining

Message from the Guest Editor

With the gradual depletion of the earth's shallow coal resources, deep coal mining has become the norm. The scale and disturbed area of coal mining projects at depth are far greater than those at shallow depths, subjecting the coal and rock masses to more intense deformation and loading. When the mining depth exceeds 800 meters, coal mining projects are extremely vulnerable to coal and gas outbursts, rockburst, significant deformation of roadway surrounding rock, mine water hazards, and coal mine thermal damage. The investigation of the spatial and temporal dynamic evolution of multi-physical and chemical fields in the coal mining process is of great significance to ensure the safe mining of coal resources in the deep underground. Potential topics include but are not limited to the following:

- In-situ mechanical behavior of deep rock masses
- Analysis and control of long-term stability of deep surrounding rock masses
- Multi-field and multi-phase seepage theory under the influence of mining disturbing
- Deep rock deformation monitoring and safety monitoring
- Deep mining dynamic hazard prevention and control
- Theory of coordinated exploitation of co-associated resources

Guest Editor

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As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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