This month we get to know Dr Aurore Joly.

1. **What is your current role?**

   I am a Senior Consultant for Mira Geoscience. My team and I provide integrated interpretation, geological and geophysical modelling, software training, and advisory services. We carry out advanced 3D geological and geophysical interpretation, tackle geologically driven geophysical inversion and exploration targeting.

2. **What do you like most about being a geophysicist?**

   To be a geophysicist allows you to unravel the hidden treasures of the Earth! My job always makes me feel like Indiana Jones or Lara Croft, in the field or in front of the computer. Using data and surveys, I can see through the cover and help understand the architecture of the Earth. This allows me to integrate the geophysical and deposit knowledge in order to find new deposits: that is very rewarding

   Today, I realise our community is a niche where we can work collaboratively with people on the other side of the planet. The Mira Geoscience team I work with is spread around the globe, and comprises a group of people that have diverse, yet complementary skill sets.

3. **What are you reading at the moment?**

   I am reading two books:

   1. "The Plague" from Albert Camus. Written in 1947, this book correlates to our modern-day outbreak of the COVID 19 and its associated risk of contamination. Both viruses strike and shock a world population which had almost forgotten the risk of infection. Those viruses undermine the cozy comfort which the economically developed countries have gradually constructed. Death had not only become distant due to increased life expectancy; it had also become intolerable as evidenced by reluctance to engage ground troops in their recent conflicts. The "value" of human life had

increased considerably in the collective unconscious of the wealthiest countries. Now today, we are realizing the precariousness of "simply" being. And;

2. The Cloudspotter's Guide from Gavin Pretor-Pinney that was recommended by my colleague, and he was right, this book is so interesting: it explains where clouds come from, why they look the way they do and why they captured the imagination of timeless artists and every kid who held a crayon.

4. **What made you decide to be a geophysicist?**

   Ever since I could remember, I have always been fascinated by earthquakes, aurora borealis (my name may have played a role), tsunamis and stones. In my 15th summer holidays I visited the Natural History Museum of Monaco: That is when I realized I would need to have a career in Earth Sciences.

5. **What is a challenge that you see in geoscience today, and how do you see the community overcoming it?**

   Integrating geochemical, geological and geophysical dataset into a same platform is the big thing. All this knowledge inside the same software really makes them sing in unison and unlocks doors. With increasing exploration challenges, I think that we need to increase the community's awareness to the colossal impact that integrating data has on increasing the prospectivity of an area.

   Sometimes, community acceptance as to how challenging this process is, and that it is an interpretative process (rather than purely numerical), is not always fully understood.

6. **Where do you think *exploration geophysics* will head in the next 10-15 years?**
   - Systematic data collection and proper storage solution need to be taken seriously by mining companies (pictures (spectral), density, magnetic susceptibility, XRF, resistivity, etc.)
   - Global and open-source datasets
   - Data and knowledge base sharing

- Free software platforms and open source solutions
- Big research consortia to develop cutting edge technologies (i.e., Geoscience ANALYST)

7. **Do you think AI will take over your job or will the human element remain vital to exploration successes?**

   In the near future, artificial intelligence (AI) will not take over. We still need to supervise it. And that is the beauty of it. It is such a great tool for prospectivity analysis. It allows us to side step human biases, it harnesses the full power of the available data, and most of all, AI can generate new ideas that could lead to new discoveries. The only problem today is that AI is seen as a black box, it is strongly dependent on data quality, and really there is not a single solution to all problems.