



WORKSHOP DEFI INRIA “Operating System” @IRISA - 15 Avril 2024

Le 15 Avril 2024 aura lieu à l’IRISA le workshop du défi Inria « Operating System ». Le workshop présentera les derniers travaux de recherche en Système d’Exploitation réalisé par les 4 équipes Inria fortement actives dans le domaine, à savoir Whisper (Inria Paris), KrakOS (Inria Grenoble), Benagil (Inria Saclay) et WIDE (Inria Rennes).

Planning du Matin		
9h	Ouverture Julia Lawall et David Bromberg	(Amphi P1 -ISTIC)
9h05	Fork-nox: a new virtualization technique to enforce system security Jean-François Dumollard (PhD – Benagil)	Session 15 min + 10 min questions par talk (Amphi P1 -ISTIC)
9h30	eBPF Hybrid Locks: Scalable Spin-based User-Space Locking Victor Laforet (PhD – Whisper)	
9h55	USM: Physical Memory Management in Userspace for Extensibility Papa Assane Fall (PhD – KrakOS-Whisper)	
10h20	Linux kernel scheduling for NUMA architectures Clement Gachod (Intern – Whisper)	Interns Session WIP 5 min par talk (Amphi P1 -ISTIC)
	pimOS: Developing an Operating System to Optimize Resource Utilization on UPMEM Processing-In-Memory Maxime Collette (Intern – KrakOS)	
	Faas Attack Stella Tchoucha (Intern – WIDE)	
10h35	COFFEE BREAK	Salle i50
11h00	Understanding Wireguard Behavior at Scale Césaire Mounah (PhD – WIDE)	Session 15 min + 10 min questions par talk (Amphi P1 -ISTIC)
11h25	FluidVMs - Adaptive workload parallelization on oversubscribed hosts Himadri Chhaya-Shailesh (PhD – Whisper)	
11h50	Twins: Enabling Strong Isolation and High Observability of Virtual Machines Dufy Tegua (PhD – KrakOS)	
12h15	LinuxSchedML: Understanding Linux scheduling bottlenecks with ML Audrey Fongue (Intern – WIDE)	Interns Session WIP 5 min par talk (Amphi P1 -ISTIC)
	X-Ray: VM-Host Communication Without VM Exit Through Intel User Interrupt Louis Duval (Intern – KrakOS)	
	Hardware features impact on hypervisors- Wilson Waha (Intern – WIDE)	
12h30	DEJEUNER – Membres du défi uniquement	Salle i50

Planning de l'Après midi		
14h00	Rust Wrapper for Linux network stack Amélie Gonzalez (PhD – WIDE)	Session 15 min + 10 min questions par talk (Amphi P1 ISTIC)
14h25	The OS scheduler benchmark Thomas Faltin (Postdoc – Whisper)	
14h50	Live Migration Of Virtual Machines on Heterogeneous Processors Caleb Fonyuy-Asheri (PhD – WIDE-KrakOS)	
15h15	USM: Physical Memory Management in Userspace for Extensibility Killian Kemgne (Intern – KrakOS)	Interns Session WIP 5 min par talk (Amphi P1 ISTIC)
	Optimizing Wireguard Ivan Bouh (Intern – WIDE)	
	USM: Physical Memory Management in Userspace for Extensibility Jocelyn Kouayep (Intern – KrakOS)	
15h30	COFFEE BREAK	Salle i59
16h00	Extraction of verifiable code modules from legacy software	Session 15 min + 10 min questions par talk (Amphi P1 ISTIC)
	Keisuke Nishimura (Engineer – Whisper)	
16h25	Verification of Energy Aware Scheduling in Linux's CFS	WIP 5 min par talk (Amphi P1 ISTIC)
	Corrin Tiffany (Intern – Whisper)	
16h30	Tour de table (Speakers + Parmanents) Whisper – Krakos – Benagil – WIDE	Brainstorming Session (Amphi P1 ISTIC)
17h30	End	